

MASSIVE**88****PAGE ISSUE
THE
BIGGEST
EVER**

COMPUTER EXPRESS

FIRST NEWS • FIRST REVIEWS • BEST BUYS • YOUR WEEKLY GUIDE

THIS WEEK

AMIGA

Commodore unveils TWO new machines — and one comes with the best bundle yet

ATARI

A 16-voice music package for only £40?

CONSOLES

Tips and tricks for the Megadrive, Neo-Geo, Gameboy and PC Engine

GAMES

Invasion of the superheroes! Robocop 2 and Spiderman come to a screen near you

As the machine of tomorrow storms its way into the UK, Express invites you to

MEET THE FUTURE



Can your 16-bit computer catch up? ▼

PUSHING THE LIMITS



The Amiga, PC, ST & Arc: What does the future hold?
A special report starts on page 77

ACTION STATIONS



Four top railway simulators on the test tracks



SHOW BUSINESS!

News and views
from the Business
'90 Show inside

PLUS 48 PAGES OF BARGAINS

WE ARE 100!

A look back at our first century starts on page 35

INTRODUCING THE
WORLD ACCORDING TO
STEVE GOLD

SHOPPING EXPRESS

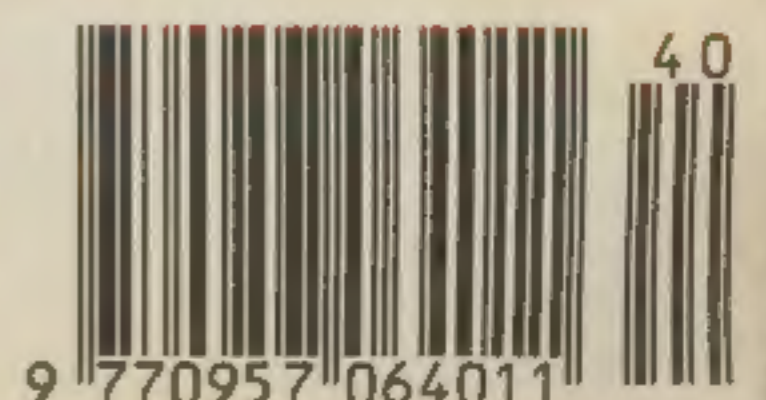
THE YEAR'S BEST VALUE OF YOUR MONEY AND MORE

CONTENTS

Amiga	35
Atari	36
Commodore	37
IBM	38
Microsoft	39
NEC	40
Philips	41
Real World	42
Sega	43
Sony	44
Toshiba	45
Wang	46
Windows	47
Xbox	48

NEWS REPORTS FROM THE SITE
CONTENTS EVERY WEEK

FREE! Reader Ads Order Form



frontend

edited by Colin Campbell



SIR CLIVE CONFIDES

What the devil does Sir Clive Sinclair think he's doing? Why hasn't he been launching whizzy new computers? Where is the ZX81 for the 1990s?

The answers to all these questions can be found in this month's issue of *Personal Computer World* which managed to secure a cup of tea and a chat with Britain's best loved inventor.

Unknown to inventor and reporter, Frontend was hiding under the desk, and stole away with the choicest quotes:

"I think the games field is ripe for innovation. It's not a field I would want to get involved with

because it's very patronising. I say I wouldn't but it does fascinate me and there are possibilities that have not been exploited. I'm surprised at that."

"The ZX80 and ZX81 were special because they were a revolution. What happened after that was really evolution."

"I don't regret selling to Alan Sugar. It had become a games thing... and from my point of view that's tiresome. I didn't want to be in that business."

"We, as Sinclair Research, are continuing work on laptops..."
Usefully, Express has salient details of Sir Clive's new machine. Turn to page six. ■

Sexually transmitted

Thrill seeking PC owners are being tempted by a new program floating around on various bulletin boards and seedy public domain libraries.

Unambiguously called *Sexgames*, the program's main claim to fame is that it can do

seriously horrible things in your machine. We'll leave the game's main points to your imagination – but if you do come across it, don't choose the "Very Dirty" option.

A hideous virus will be set loose which will re-format your hard disk. You have been warned. ■

● Form creation program *FormTool* has been upgraded to include more complex grid drawing, an encyclopedia of 150 form designs and a WYSIWYG preview screen. *FormTool* has already sold 350,000 copies worldwide. The new *FormTool Gold* costs £89.16 (inc VAT). Call distributor DDT on 0983 864674.

● An exhibition devoted to

multimedia is being planned for next summer. Multimedia '91 is being organised by the same company responsible for the Computer Graphics, Image Processing and Electronic Publishing shows. ■ will be held at the Olympia 2 Conference and Exhibition Centre in London from June 25 to 27 next year.

● A business software design competition has been set up by Computer Associates. The Business Software Challenge is open to all current higher educational students as well as recent graduates. Prizes of £25,000 will go to software designers who create the best solutions to specific problems. Call 071-831 6262. ■

Ribbon ruin

Last year 26 million printer ribbons were chucked away – enough to reach from Land's End to John O'Groats and back three times. In the entire Western world 128 million ribbons were discarded.

South coast based Lateral Developments reckons it has found a new way to save those faded articles. Re-Ink is a simple spray can which you point at the top of the ribbon. A can costs £12.95 and can replenish ribbons 30 times. The firm reckons computer users will go for the Re-Ink spray in a big way. Call 0202 731237. ■

The Brethren are back

Readers may remember an organization called the Exclusive Brethren. This lot believe computers should be cast into the dumper for all eternity because they are "the devil's tool".

The religious group – which prevented 115 children of the faithful from attending high-tech schools in Barnet last year – has struck once more by refusing to send their kids to a City Technology College in Dartford, Kent.

The Brethren are furious because of the increasing importance of Information Technology in schools. The CTCs are kitted out with hundreds of computers and are designed to help bright kids get on with

technology. The sect say these schools are the work of Satan (when, in fact, they are the work of former Education Minister Kenneth Baker).

The Brethren interpret the Book of Revelations as a prediction that the Antichrist will use technology and computers to lead the forces of evil.

They say computers are "a scientific imitation which rivals what God has put into living persons making man increasingly independent of God".

A spokesman for Leigh CTC in Dartford said the school attracted many applicants and the educational authorities have already stated that will not be reversing the CTC project or dropping IT. ■

● Classic 16-bit Electronic Arts favourites are to be re-released at a new budget price of £9.99. The first titles to be made available in the

Star Performers series will include flight sim *Interceptor*, *Bards Tale II*, *Powerdrome* and 1920s adventure *Hound of Shadow*. ■



Court in the act

Nicholas Purnell QC, chairman of the Criminal Bar Association, has called for computers to be used more often in complicated court cases.

Speaking at the annual Bar Association conference he said the graphical capabilities of computers could help juries understand evidence which is difficult to present. He pointed out that the Bar has long been using graphs and plans on hard copy, but had failed to adopt computer technology.

It emerged that the main reason for the Bar's failure to keep up has been good old fashioned British bureaucracy. Inter-Governmental wrangles are still going on as to who exactly should pay for equipment. ■

Computer challenges Kasparov



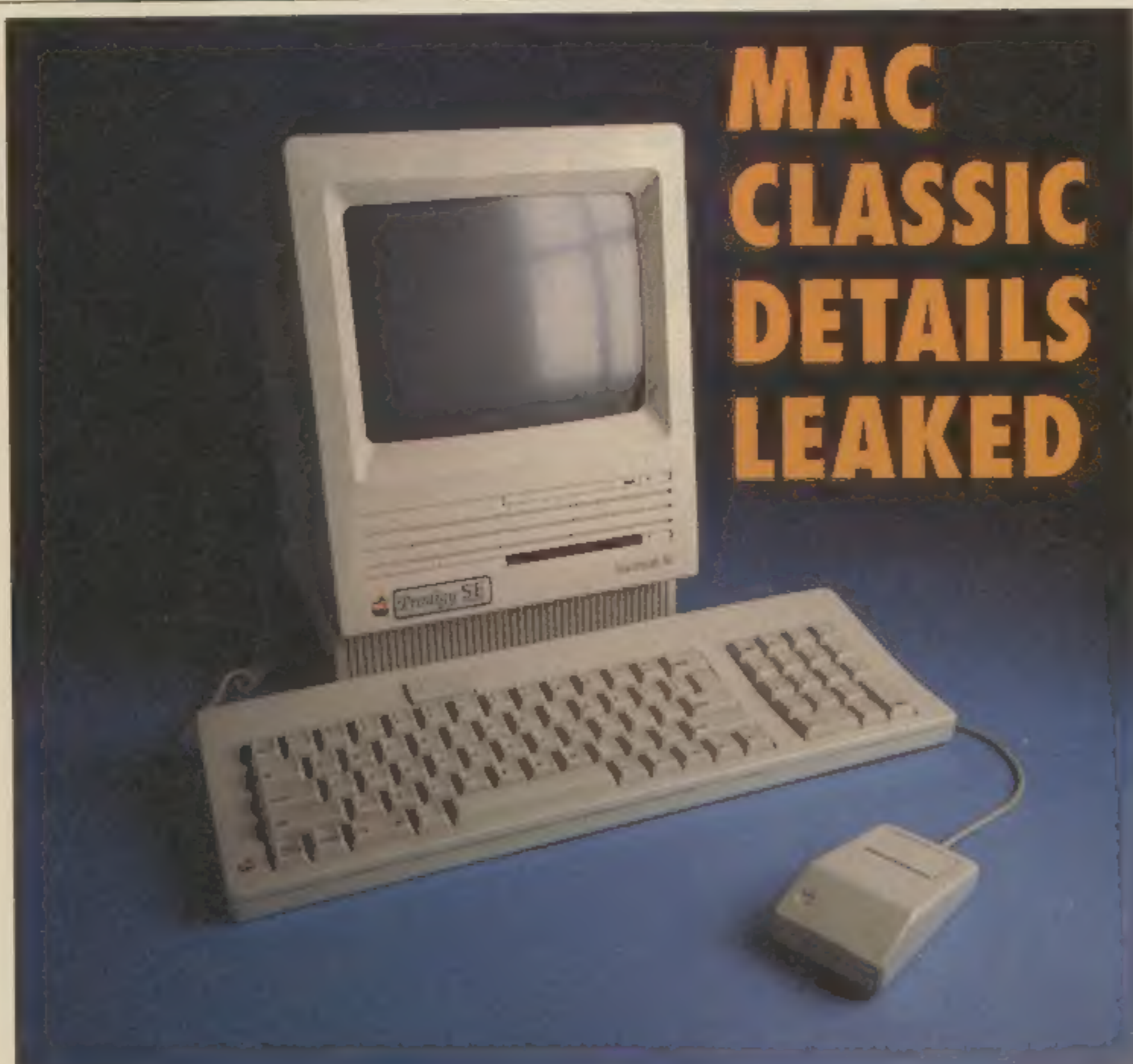
Gary Kasparov is incredibly good at chess. In fact he's so good that he is not only world champion but also one of the only mortals who can whip "the complete chess computer" Deep Thought. However, scientists are working on a new version of the machine which, they claim, will have no problems in giving Kasparov a good drubbing.

Deep Thought II will be ready in 1992 and will be 1,000 times better than its predecessor – it can examine 1,000 million positions per second. Last year Kasparov beat the original; and former world champion Anatoly Karpov held it to a draw.

Dr Andreas Nowatzky, one of the machine's four designers, commented: "The new version, like the old, plays by sheer brute force. It doesn't think or employ any clever tricks, it just remorselessly examines the maximum number of possible positions in the shortest possible time."

He added: "I wish I could pretend that in building ever faster chess machines we were solving some social problem. But we do it because it's tremendous fun."

Kasparov remains unconvinced. "It may be able to defeat the general run of grandmaster, but not Karpov and me," he said. ■



Details of the forthcoming Macintosh Classic – due to be launched this month – have been leaked to Express.

Dealer sources say the entry-level machine will retail at £595 and will feature a single floppy disk and 1Mb RAM. The Classic has been styled similarly to the soon to be discontinued Mac Plus and SE (pictured) which had hitherto been the entry level Apple machines. A 40Mb hard disk version will cost £940 and may come with 2Mb of RAM.

The Mac Plus currently costs £995 without hard disk. The new Mac represents a 40 per cent price cut.

Apple will also introduce a low-cost colour version of the Classic with a tempting retail tag of £1,230. And a "very sleek" high-end machine, largely comparable to the existing IIfx, will also be introduced.

These machines represent Apple's first assault on the European home computer markets. The firm is hoping to attract potential buyers away from established home computers such as IBM compatibles, the Commodore Amiga and Atari's ST. Apple is not prepared to comment on the new launch. All will be revealed in Express 102.



Scouting around

Cubs, Scouts, Guides and other healthy outdoor types should spend more time with computers, according to the Government.

Ministers complain that they are pouring some £2 million a year into such youth organisations and they want to impose a strict curriculum on them to make sure that their investment pays dividends.

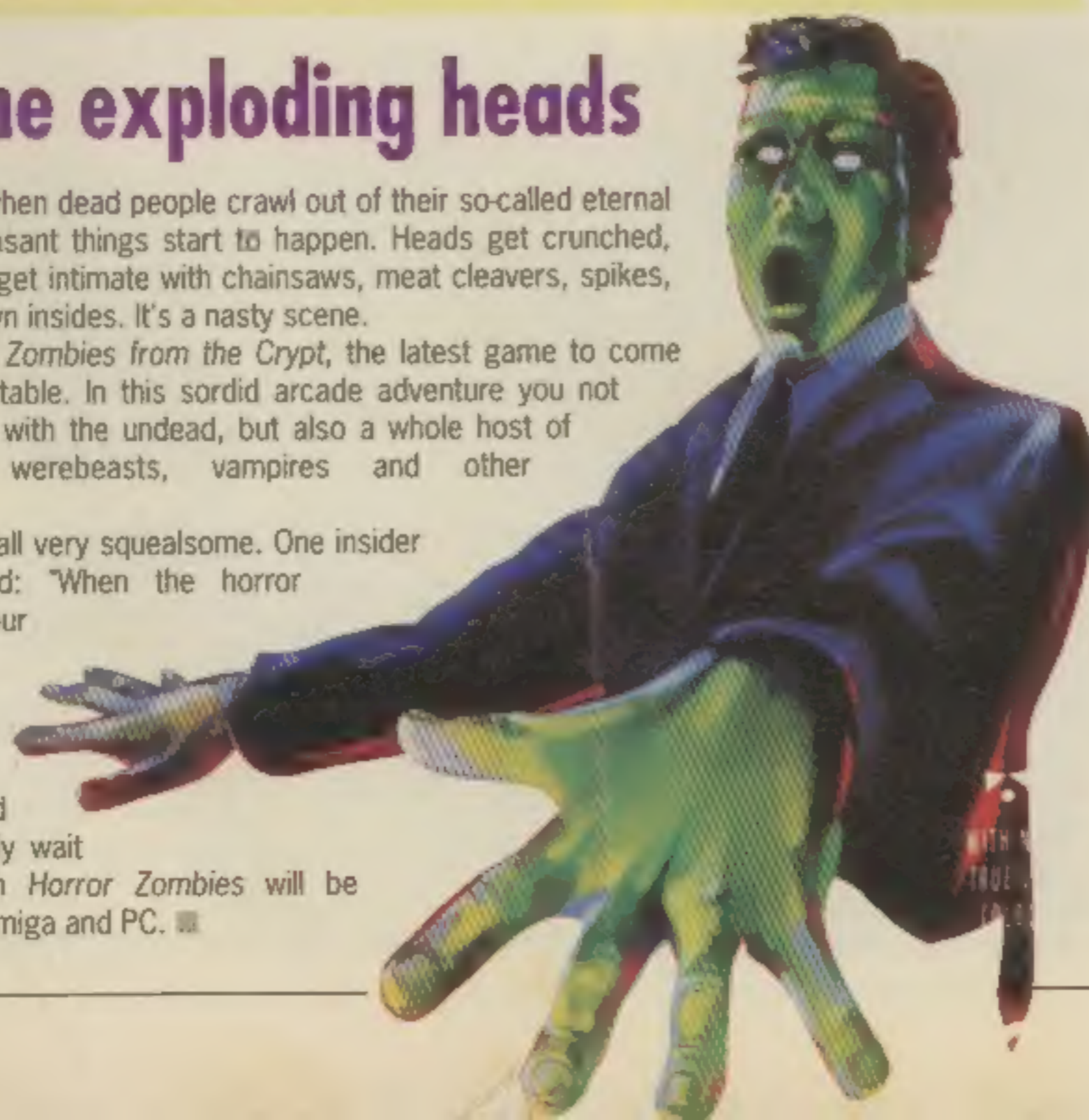
But Scouts are already encouraged to use computers – there's even proficiency badge for computer literacy.

Gruesome exploding heads

It's always the same when dead people crawl out of their so-called eternal resting places. Unpleasant things start to happen. Heads get crunched, blood squirts, people get intimate with chainsaws, meat cleavers, spikes, and eventually their own insides. It's a nasty scene.

So it is with *Horror Zombies from the Crypt*, the latest game to come from the Millennium stable. In this sordid arcade adventure you not only have to contend with the undead, but also a whole host of ghouls, spectres, werebeasts, vampires and other unmentionables.

Millennium says it's all very squealsome. One insider confided to Frontend: "When the horror zombies get you, your head explodes and a great fountain of blood pours out." Those of you who appreciate a good decapitation need only wait until November when *Horror Zombies* will be launched on the ST, Amiga and PC.



CONTENTS

FEATURES

All aboard the Express train

We blow the whistle on train simulations – page 69

Has your machine reached its limits?

Is there more power to be wrung out of your hardware? – page 77

This computer is better than your computer

We've seen the future and it works – page 86

100th BIRTHDAY

The first 100 issues

A Centrefold special looks at the whackiest items we've ever covered – page 39

£20,000 to be won

And we've got 21,000 readers. Fancy your chances? – page 84

REVIEWS

Thanks for the memory

How easy is it to add megabytes to an Amiga? – page 16

EVERY WEEK

Games Week 18

News, tips and reviews



News	4-9	Circuit City	73
Opinion	10	Power problems	
Letters	13	Tech Tips	74

SHOPPING EXPRESS

Columns:		Whole Wired	
Amiga	22	World	36
Archimedes	23	Express Jobs	38
CPC	24	Centrefold	39
C64	25	Classified	43
PC	26	On-line	60
Spectrum	27	Console Zone	65
ST	28	PD Column	66

Surprisingly enough computer shows dedicated to business have a reputation for being just a little dull. Some philistines have even suggested that these events are even more boring than your average bus-spotters' convention in Weston-super-Mare.

Business Computing '90 at Earls Court set itself up to catalyse a positive reaction and actually managed to succeed. Unlike that monster the Which Computer? Show it wasn't big enough to warrant a delegation at the United Nations. Nor was it a parade of techie boards and gadgetry, backed up with the usual babble of jargon addicts. It even managed to steer clear of outrageous commercialism (despite being all about making more money by using better computers).

IBM was there, Apple was there, Microsoft was there, Commodore was there, Amstrad was there. Atari wasn't.

It was a great opportunity for anyone serious about serious computing to get acquainted with anything from the best in low-cost word processing to 486 token ring networks.

NEXT: Comprehensive details of the entry-level NeXT machine can be found on page seven. But how was the mould-breaking computer received by computing's cognoscente? Most people could barely disguise



• NeXT made a splash.

their amazement. This is, after all, one hell of a machine. What it can't do isn't worth bothering with.

At £3,300 the low-cost NeXT is a snip. Trouble is, none of us have £3,300 to spare.

None of us are going to re-mortgage the house. But there were quite a few serious young men in evidence last week — most of whom seemed to be

figuring out whether to forego the Jag for a Montego.

Those of you impressed by big numbers will enjoy this: it comes with a 105Mb hard disk, a 2.88Mb floppy drive and has 8Mb of memory on board. The 68040 chip runs at 15 million instructions per second (MIPS) and 2.8 million floating operations per second (that's about three times faster than the 68030). Just beautiful.

COMMODORE: This firm has attempted more assaults on the serious end of the market than is advisable. Nevertheless, Commodore has weathered past criticism, carved itself a respectable little market share and is now beginning to launch some noteworthy kit.

Take its first ever portable. The C286-LT took everybody by surprise. Most had expected to see little more than a re-jigged PC Starter Pack and maybe another uninspiring desktop 286. But the 286 portable really is a great little machine.

It's A4 sized, weighs 7lbs (3.2kg) and is just two inches

Express went back to Earls Court for the second

THE ENTERPRISE



• Commodore's C286-LT: the nicest portable under £2,000.

deep. There's a 20Mb hard disk included as well as the 1.44Mb standard 3.5-inch floppy. The LCD screen is clear and bright and there's all the expected peripherals including printer, and serial and parallel ports. At £1,999 it's not the cheapest option, but it's a good deal more portable than other 286 PCs which cost about £200 less.

UK boss Steve Franklin was, as always, bullish. "It is stylish, small and light enough to carry anywhere," he said. Franklin is never one to shy away from bold predictions and he's already reckoning on stealing more market share from the old predictables.

Commodore also unveiled the Amiga 3500 which is basically the Multimedia 3000 machine in a tower box. This is definitely for high-end graphics, animation, video and CAD fans.

The firm has also fulfilled its promise to get into Unix. Unix version 4 has been chosen as the operating system across all high-end Amigas — from the A2000 up.

Oh yes, and there was a largely uninspiring addition to the desktop range. Called the PC-35 it is essentially just another 286 with a hard disk.

AMSTRAD: Sugar and his band cocked a snoot at all of us who have been saying the firm's serious desktop PCs are a bit of a joke. The 'New Generation' 3000 series has already been documented in Express (Issue 97). They are good, tough, fast machines for people looking to make that old price/performance equation add up.

Rumour has it that the firm is

encouraging. Many feel the firm will have to rely on its not inconsiderable advertising budget and 'brand awareness' advantage to shift the machine.

As an entry-level machine it looks the part, but there's a plastic feel about the kit which has not impressed reviewers and the technical specifications are hardly awe-inspiring.

For those of us in the know there are far better options but, being IBM, this machine will probably sell. Judging by the effort expended at the show (by a company which has often attempted to appear aloof) this machine has been designed to succeed.

And when IBM wants something bad, it usually gets it.

STAR MICRONICS: Three new printers were unveiled for the first time, and prospective printer buyers should cast their eyes over the new options. The LC-200 is a nine-pin model supplied with both mono and colour ribbons, plus a 16Mb buffer. It has eight 'near letter quality' fonts and a top-speed of 225 characters per second.

The LC24-200 is the same again, except with 24 pins and no colour. Top speed is 222 cps. The LC24-200 Colour is self-explanatory but it has a 30K buffer. Prices are an impressive £259, £319 and £369 respectively.

Star's sales and marketing director Roger Bayley said: "We've broken new ground with these products. Our instinct to provide more standard features on low cost machines is absolutely correct."

He's absolutely correct.



• IBM's PS/1 was there, but will it still be around next year?



• The new Amiga 3500 running X-Windows under Unix. Bye Bye 'home micro'.

second time in a week for Business Solutions '90 RISE INITIATIVE

ELONEX: It introduced a desktop 386 costing £925. The PC-386SXM/16 comes with 1Mb of RAM, a 40Mb fixed disk, mono monitor and all the usual extras. The colour version costs a customer-winning £1,095. There was also a 486 costing £2,500 and a £1,295, 286 notebook PC. Interested buyers should call 081-452 4444.

ARCHE: A manufacturer of very good corporate machines but still not immune to the delightful burdens of market pressure. Arc lopped big numbers off its prices – £2,275 came off the Profile 486-25 which now costs just

APPLE: The home and small business Macintosh Classic will be officially launched next week so, unfortunately, Apple decided not to preview its long awaited machine at the show. Thought I'd better mention it though, because there was nothing else new for Mac fans, except for a few applications and add-ons scattered around the show.

PANASONIC: Like Star, Panasonic was in the mood for low cost printers. The KX-P1123 is a 24-pin 10 or 12-cpi dot matrix with a retail tag of £295. At the other end of the scale was the KX-P4455 laser which

bigger than A4' CF-170 and CF-270 come with 20Mb hard disk, floppy drive and incredibly sharp VGA or CGA screens. They weigh 6lbs (2.8 Kg) and 7lbs (3.1 Kg) respectively and come in clamshell cases. Nice machines.

SAMNA: Best known for the Ami word processing range, Samna announced the imminent availability of a HyperCard-like tool for the PC. SmartText is a simple way of storing and linking text or graphical information in an easily accessible database. It costs £500.

WALTERS: A low cost 286 was



• Some of Amstrad's technical advisors explaining the advantages of OS/2.

massive 42 per cent drop on Walters previous pricing for an entry level 286. Ron Brand, chief executive of parent company Willaire, explained that a "tightening up" of corporate IT spending demanded the availability of workhorse 286 options.

SAMSUNG: "Computers", says Samsung national sales manager Peter Cleverly, "are not particularly interesting things. In fact they're extremely boring." Well, there's nothing like an over-enthusiastic sales pitch to get the adrenalin flowing. In fact Cleverly was trying to say that it's what you do with the machine that counts. Hence Samsung invited lots of software developers to show what they could do. Among them was the Fish Auction System from Donegal based Profile Systems, which is quite interesting.

Samsung also dived into the low-cost fax market with a £395 offering called the SF1000.

TANDON: Tandon is Britain's second largest supplier of 286 machines yet, surprisingly, the only new hardware in evidence last week was a trio of dot-matrix printers. The cheapest – the

MatrixPrinter 9L – is nine-wire and bi-directional, offering draft printing speeds of 220 characters per second. It has a colour option and costs £595.

OPUS: A first-timer user's network package was unveiled which requires no more than a couple of wires stuck into the back of your PC. There are three versions, the cheapest of which can be linked to four users. The top end version can handle up to 100 users.

Also on show for the first time was the 286 desktop portable, which you already know about. Although it's not a laptop, it's small enough to be carried around.

OLIVETTI: A veritable monster of a stand held the new 386SX which will retail at a reasonable £1,499. There was also a starter pack for the "Euro-business executive". The PCS1992 (geddit?) bundle features a choice of 8086, 286 or 386 computers along with Microsoft Works, a database of European companies, a translator and country-specific word templates. Prices are yet to be announced.

Reported by Colin Campbell.



• Big stands were the order of the day from the major players in Earls Court.

£9,245. At the more sensible end of the price range, the firm cut £275 off its 1Mb Parade 286 (but that's still £1,745).

The first Arche portable also made an appearance. This is a hefty 386 running at 20MHz with 2Mb of RAM, 40Mb hard disk and one floppy.

MICROSOFT: With everyone and his, or her, secretary converting to PC graphical environments it was hardly surprising to see Microsoft holding court to a whole host of Windows software publishers. Visitors had a chance to see all manner of applications running under Windows including Word, Excel, PowerPoint and Project. Familiar names such as Samna, Precision, Hewlett Packard and IBM were set up in the Windows village as well as the newly formed Windows User Group, who are worth talking to. There are now about 150 Windows 3.0 compatible programs available. One of the newest was NBI's advanced word processing package Legacy. It's got tons of whizzy features and costs £450.

has two bins and can manage 11 pages per minute. It comes with 2Mb of RAM and has an attractive number of interfaces. Price? £2,695.

Two new portable PCs were unveiled. The 'just a little bit

launched by this business computing veteran. The GC 80286 AT is a basic single floppy without any frills and costs £530.

This is not especially cheap given the lack of extras but, interestingly, it represents a



• Amstrad took the prize for the most over the top stand with this multi-layer contraption, complete with its own bar for the fortunate few who were invited in.

PETER PARKER PICKED A PLATFORM POKER



Spiderman is back at the end of the month in a new game from Entertainment International. Called *The Amazing Spiderman*, the game sees Peter Parker aka Spiderman attempting to rescue his wife Mary Jane. She has been spouse-napped by the evil Mysterio. The game is set in the Rockwell Studios with each level being set on a separate sound stage. Scenes include horror, science fiction, outer space, epic and backstage. No prices as yet. ■

Very nice firm

IBM has shown its corporate heart by giving away over \$400,000 worth of computer equipment, including 12 PCs, to a Romanian hospital.

Eugene Hahn, head of Big Blue's Eastern arm, IBM Roce Inc, came over misty eyed and said: "IBM has always prided itself on being a good corporate citizen and has a history of being charitable to the handicapped and sick." ■

Rhyme or reason

T S Eliot would have swung his cats for it. Dylan Thomas would have given up the booze. What is it? It's *WordPerfect Rhymers*, a program which finds rhymes for up to 93,000 words.

The system will run on any machine capable of running *WordPerfect*. It is capable of finding end-word, syllable and even triple rhymes (such as antelope and cantelope). It does this by working phonetically.

It costs £75 and is available now. For more information call 0932 850500. ■

FBI indicts dealer for selling secrets from old disk drive

American computer salvage expert Charles Hayes, who bought a second-hand Harris-Lanier system for \$45 only to find that it contained State Department records (see *Express* 97), has been busted for attempting to sell the sensitive data from the system.

The Federal Bureau of Investigations spent nine hours searching the premises of Hayes' business, Challenger Ltd, following which a suit was filed against

him by the Justice Department.

This was a month ago; since then Hayes has become further embroiled with a worried US bureaucracy. He maintains that between laying out the money and receiving the system, the data was supposed to have been erased. A Harris-Lanier operative denies this. The data included sealed indictments, details about protected informants, and other highly sensitive information.

The authorities now claim that they have taped conversations in

which Hayes attempts to sell the data. A private investigator wearing a body-wire approached the dealer on two occasions in attempts to gain evidence.

Hayes claims that he realised that he was talking to a Government agent and was only joking about the data.

The authorities maintain that "Hayes was making a serious attempt to market information," and that "There was no kidding or joking about it." The case continues. ■

Viruses could be costing £5 billion a year

Computer viruses could be costing business up to £5 billion a year according to a report published last week.

The Norton Antivirus Survey found that reported incidences of virus infections in worldwide business establishments had risen from 3,000 in 1988 to 30,000 already this year.

The survey, on behalf of the European Software Publishing Group (which publishes virus busting packages) estimated that the cost of removing rogue software programs could be as high as £750 million this year.

But the damage to businesses done by the viruses is much more extreme. ■

Breathtaking performance CD sound and stunnin

NEW COLOUR THE WAY FOR

A low-cost version of the state-of-the-art NeXT machine was launched in London last week, and was duly received with something approaching rapture by a European audience of developers, distributors and the press.

The Californian company, founded by former Apple boss Steve Jobs, launched four new products ranging from the £3,225 NeXTstation to the top-end 32-bit PostScript colour NeXTdimension.

The range is being pitched as a future-proof platform for the '90s based on the innovative graphical user interface, NeXTstep, running on a fully multi-tasking Unix operating system. The machines' raw power and speed should ensure major penetration of networking, DTP and multimedia markets, although as yet it remains to be seen whether the company has the marketing muscle to realise this potential.

The 68030 NeXTcube machine launched earlier this year has been ditched in favour of the 68040-based series - NeXT claims to have secured half of Motorola's total 68040 output.

In separate announcements a number of developers introduced software applications and peripherals for the machine. Notably such heavyweights as Lotus, Quark, Ashton-Tate, Adobe and WordPerfect.

With the increased power and projected base of 100 applications within the next year, NeXT has answered earlier criticisms levelled at its exciting machine. Perhaps the most far-reaching decision being to pitch the entry level machine at £3,225 - half of the original asking price and nearly a third of that of competing workstations from the likes of Sun.

The range of innovations would appear to be almost endless.

The machine includes ■

2.88Mb floppy disk drive and 105Mb hard disk with NeXTstep Release 2.0 installed and 8Mb of memory. Options include memory expansion to 32Mb and a 340Mb hard disk. Also available are 250Mb rewritable optical disk, a 1.4 gigabyte hard disk and a low-cost 400dpi laser printer.

The high performance Motorola 68040 chip pushes the machine to speeds doubling those of a 486 PC or top-end Macintosh and in intensive graphics applications can perform tasks 60 per cent faster than a dedicated graphics workstation.

The NeXT display utilises a million pixels (1,120 x 832 resolution) at 92dpi and is based on Sony Trinitron technology which ensures crisp clear images not rivaled by any computers in the sub-£10,000 price bracket. Its screen-drivers can handle different graphics resolutions in different windows - simultaneously.

PC companies battle it out

Olivetti and Amstrad have been throwing poll results at each other in an attempt to win a PC skirmish.

The Italian firm claims that a recent Romtec report shows that the PCS286 was on top of the market with both Amstrad and Compaq machines lagging behind.

Amstrad is supposed to be five percentage points behind. Olivetti also claims that its PC386SX replete with the '1992' package of Microsoft Works 2, will romp home over Amstrad's new PC3000 range.

Amstrad's counter-claim is based on results taken from a MORI poll.

These figures apparently show that Amstrad is second in the market, beaten only by IBM.

Meanwhile Olivetti is looking at extending the 3,500 redundancies it has already made this year.

With both firms taking recourse in statistics, this one could run and run. ■

stunning 32-bit colour sets Steve Jobs' 'budget' NeXT apart

NeXT SHOWS 90s COMPUTING



• NeXTstation: superb colour at a ground-breaking price.

This includes full motion video which can be moved around, captured, and pasted into documents in real-time.

- Built in CD quality sound gives the machine some novel networking capabilities. Users can

append spreadsheets, databases and documents with voice buttons which allow audio annotation of items of interest or note.

- By using Display PostScript, a screen version of the page de-

scription language pioneered by Adobe and normally found at the heart of high resolution laser printers, NeXT has finally fulfilled the 'What You See Is What You Get' promise. What you see on-screen is exactly what you will see from the print-out.

• Bundled NeXT software also offers optical character recognition capabilities which allow incoming fax messages to be read as text and edited accordingly. Computers currently treat fax messages as solid images which cannot be tampered with.

The other three machines on offer were a 16-bit colour version of NeXTstation, an upgraded version of the original NeXTcube which features a 68040 with floppy drive and 105Mb hard disk, and a 32-bit colour and graphics board.

The NeXTcube can be used as a network server or high-end desktop and offers the greatest number of configuration options within the NeXT family.

The NeXTdimension card offers 32-bit colour (16-bit normal colour and 8-bit for transparencies) which allows for sophisticated three-dimensional art work from a display of 16 million colours. It features the RISC i860 chip which is used for handling heavy duty on-screen graphics, and the C-Cube video compression chip which can condense video or bitmapped images by a factor of thirty to one. The NeXTdimension board costs £2,570 while the colour NeXTstation and NeXTcube cost £5,155.

Steve Jobs commented: "We've listened carefully to our current and prospective customers and many have told us that our new products have exceeded their expectations. They have applauded our decision not to quote artificially low prices for diskless or incomplete products. NeXT's low prices are for real, complete, high performance computers".

Sims city!

More simulations and strategies than you could shake a Fokker Wolf at are coming your way from Mindscape.

The Sussex based company has signed American sim specialist Three Sixty and will be marketing the following titles in the UK:

Das Boot is based on the cult 1981 film of the same name about a WWII German U-Boat. It features depths charges, land-based targets, and missions in the North Atlantic, the Bay of Biscay and Norway among others.

Blue Max, a WWI flying sim in which you have a choice of eight fighter planes in order to test your flying skills.

MegaFortress sees you flying a B-52 bomber. You have "state of the art" weaponry, and must avert a nuclear confrontation. All this with 3D graphics.

All cost £34.99 and run PC and compatibles. ■

Fuji gets OK

The British Government has finally given the thumbs up to the merger of ICL with the Japanese mega-corporation Fujitsu.

This move will take the last remaining British computer firm out of European control. It will also make Fujitsu the second largest computer and electronics company in the world, just one step away from IBM.

Fujitsu has not bought ICL wholesale, it has taken an 80 per cent share giving it full voting control. ■

They've got your number

Every household address in the UK is for sale. What's more once you've bought the software, called QuickAddress, you can run it on any standard PC with a hard disk.

QuickAddress is a Terminate and Stay Resident (TSR) program and acts as a pop-up window on your PC. All you need do is call it up, enter the postcode, and the address will appear within four seconds, at least that's what the publisher claims. It also claims that it has been tested with all leading databases, word processors and spreadsheets.

The system makes use of the Post Office Address File (PAF) which contains 23 million addresses. The original data file has been crunched from 2,000Mb to a more handleable six.

QuickAddress costs £875, comes with twice yearly updates and is available now.

Call 071-228 6730 for more information. ■

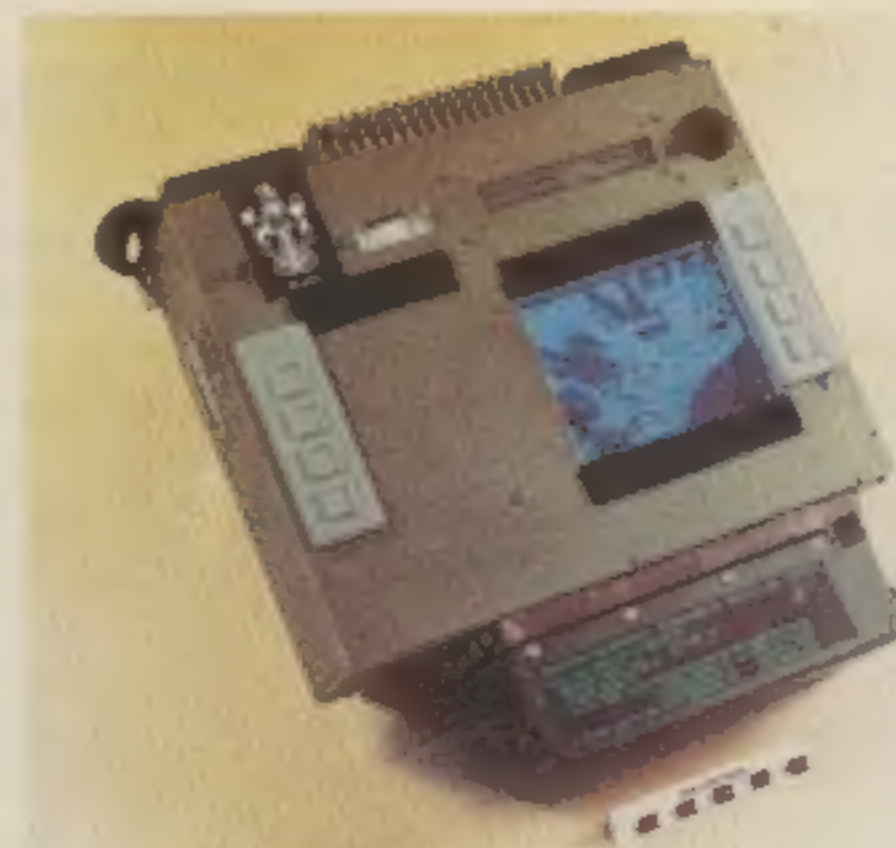
Mousetrap catches computing power

The world's first pocket-sized supercomputer was unveiled last week at a military computing exhibition in Wembley. Christened the Mousetrap, it weighs less than a couple of bags of sugar, yet it has twice the power of an IBM mainframe.

Essentially the Mousetrap is a parallel-processing SuperNode, compressed down into a portable tool of a fraction the size. The SuperNode, the fruit of a joint Franco-British venture, is designed for computer-intensive tasks such as finite element analysis and computational dynamics, and it runs on its own operating system, a Unix offshoot known as IDRIS.

Once the project was completed, the possibility of miniaturising the Transputer chips and fastening them straight on to a ceramic substrate, instead of in the usual space-consuming multi-legged packages of the Supermodes et al, became evident to the military. The Royal Signals and Radar Establishment thus developed a hand-held version for field operations.

It's disconcertingly small size belies its power. The 16 transputers, each with 256K of static RAM, provide a peak processing power of 200 million MIPS (million instructions per second). Yet it can be



• Mousetrap: small but extremely powerful.

brought into life and powered by a battery pack the size of a paperback book. The RSRE application is designed to calculate lines of sight on a map, to determine what can and cannot be seen by the enemy. This takes it a couple of seconds. On a DEC VAX mini this would take 10 to 15 minutes.

No civilian version yet exists. Watch this space for more! ■

How simple are you?

Do simple minds pick simple tools? Is 'user-friendly' a euphemism for 'too dim to cope with anything more complex than a wheelbarrow'? To get to the point, does all this apply to the average word processor user's prose style?

Researchers at the University of Delaware claim to have established a relationship between the sophistication of constructed sentences and the complexity of word processor used.

Thus, predictably, Macintosh user's ability corresponds to the level of a 14-year old while, naturally, an IBM user is accorded the intellectual capacity of 18 years. The blame is placed on the Macintosh's user interface which, through its suffocating simplicity, encourages poor writing, spelling and punctuation.

The possibility that people choose simple word processors because they want to concentrate on what it is they are writing does not, however, enter into this analysis. ■

NIBBLES

- A cheaper way of printing images straight from video has been launched by Thury-Lander. The (relatively) low cost TP2560 video printer provides a 256 grey tone hard copy from a video image. It operates from standard video signal inputs and can be controlled by a remote keypad with LCD display. It costs £1,261.
- Apple has transferred full responsibility of its HyperCard software range to its subsidiary Claris. The firm realises that the popular line-up of interactive cataloguing programs needs total support from its software arm. Meanwhile, UK software firm Kuma is planning to launch a low-cost HyperCard type programs for the ST and Amiga.
- Violence and speed are the general themes for Players' latest 8-bit budget games. *Operation Hanoi*, *Havoc*, *Turbo Cup Challenge* and *Outlaw* are just a few of the latest £2.99 titles.
- A 30-minute video aimed at first time buyers of the Amiga has been launched by Trilogic. It helps users get to grips with the machine and costs £14.99. Call 0274 691115.
- We got the telephone number of Harlequin, maker of the Sound Express sound sampler, wrong in *Express 99*. The firm can be found on 0268 695355.
- British Telecom is launch a way for users to check telephone bills. For a charge of 5p users can check the cost of a call. Should be useful for modem owners.
- An estimated 30,000 people attended the two day Computer Entertainment Show a few weeks back. Some 7,000 hopeful visitors were turned away for safety reasons. Organiser EMAP is understood to be looking for an alternative venue for next year's event.
- A new directory of PC software and hardware is to be published in disk form. Called *Inside Information*, it can be used as a sort of database, searching for products by name, supplier or type. The program contains some 5,000 products already and is updated monthly. It costs £75 an issue or £150 for a year's updates from Codehigh on 0256 893539.

Trevor scores for computer footer

Trevor Brooking scored the winning goal in an FA Cup final. He played for an England side which did not lose one match in the 1982 World Cup Campaign. He was Britain's first £1 million player. When analysing footer on the telly he knows exactly, to the second, when it's time to switch away from the sweeper system to a more convention style...

This man knows his football.

Hardly surprising then that the former West Ham midfield great has joined the ever-growing band of footballers to be associated with computer games.

Trevor Brooking's *World Cup Glory from Challenge* is a strategy based game woven around a World Cup campaign. In the game TB pops up at half time and full time to give match analysis and tips.

Challenge reckons this is "the most detailed World Cup game ever". It costs £9.99 on the Speccy, C64 and CPC. Call 0371 875250.

• Brooking in his Hammers heyday (vs Manchester United).



Rubber keyed PC compatible set for '91

SIR CLIVE'S PC LAPTOP PLANS

Sir Clive Sinclair has revealed the details of his long awaited PC compatible laptop.

Curiously, the laptop could be launched as a Sinclair Research product - the existing laptop Z88 with its proprietary operating system - a Cambridge Computer machine. Both companies are largely owned by Sir Clive.

The new A4-sized machine is just an inch thick. Unlike the Z88 it is clamshell styled with the screen lifted up over a rubber keyboard. The screen is slightly bigger than that sported by the Z88.

It has been dubbed the Sterling and is claimed to be 100 per cent IBM compatible. It does not come with a floppy drive although one will be offered as an optional extra.

It is likely that the ROM will feature built-in word processing, database, spreadsheet and comms software. It weighs two pounds and will cost between £500 and £600. Sinclair Research is working on a hard disk, although this may not be included in the launch versions of the Sterling.

In an interview with *Personal Computer World* magazine Sir Clive commented: "It has a lot of hardware innovation - I mean a lot of the features the Z88 pioneered. You can switch it off and come back and everything is still alive in there. It's got low power consumption, it can go to sleep without losing its data."

"The thing about this is that it's totally [PC] compatible. It will run any software, there's no hedging or fudging."

The Sterling comes with 1Mb of RAM although Sinclair is contemplating a cheaper 500K version "for people who have limited use". This would be particularly attractive to buyers simply looking for a word processing tool.

Already the machine is being previewed to trade customers, who are being invited to offer criticisms and constructive advice. Sinclair is hoping to get the machine into the shops by the middle of next year.

• Hear more from Sir Clive on page 2.

Grandmaster very flash

How would you like to prove yourself against a chess Grand Master? How would you like to do it from the comfort of your own armchair? Well, with the help of the BBC and some advanced computer technology the chance could be yours.

The Beeb has arranged for Jon Speelman, one of the finest chess players ever to emerge from this country, to play the television watching population of Great Britain - at the same time.

Viewers to a program called *Your Move*, to be screened on December 7th, will be able to phone in their moves in a live attempt to defeat the great man. The BBC has enlisted the aid of a computer which can analyse thousands of calls a minute in order to reach the best possible move in the shortest possible time.

Although multiple matches - called *Simuls* - are commonplace, it is unheard of for anyone to play an entire nation in one sitting. *Your Move* is being heralded as the first true piece of interactive television to be shown in this country. No time slots have been arranged as yet.

USSR grabs old US mainframes

Another nail in the coffin of the cold war has just been struck - the US is to sell second-hand IBM mainframes to the Soviet Union.

A year ago it would have been illegal to attempt to export so much as a 286 behind the iron curtain. Now the influence of Glasnost is evident in the announcement of Boston-based American Supercomputers Unlimited of its first hi-tech sale to the Russians. President Wayne Cowert, who formed the company in July immediately after the lifting of the ban on advanced technology exports to Eastern Europe, believes demand for these computers is practically insatiable.

The company has already opened a Moscow office.

Computers sold to Iraq through back door

Iraq may have been receiving American computer equipment despite strict trade embargos.

Saddam Hussein's regime is still able to obtain high-tech equipment including supercomputers via a loophole in the USA's own back yard.

America offers Brazil 'very favourable trading status', and Brazil has few qualms about arms and technology exports to Iraq. Questions have already been asked in the US Senate with one Senator, Bob Kasten, demanding that the trade between the States and Brazil be reviewed because the Brazilians "turn around and transfer it to madmen like Hussein."

IBM has already had an ex-

port licence refused when it attempted to sell a powerful number crunching device called a vector processor to the University of Sao Paulo.

Until 1988 the South American country was still selling arms to Libya. It has also sold missiles to Iraq. In the last few months several Brazilian advisors were recently reported to be aiding Iraq with missile development - in Baghdad.

The call for a cessation of US/Brazil trade has not met full support in America where powerful Senate lobbyists are fighting both corners.

It is also known that Brazil is not the only country which imports from the States only to export to Iraq.



• Saddam Hussein: could be receiving the best in US computer technology.

EXCLUSIVE: New Amiga aimed at the adult audience

AMIGA 1500 PHC GOES UP MARKET

Commodore is planning to launch a new Amiga, the 1500 PHC, aimed squarely at those users who are really serious about computing.

The PHC (Personal Home Computer) pack will feature an Amiga 1500 - which is a 1Mb machine with two disk drives in a 2000 case - along with a line-up of highly acclaimed software packages and extras.

For just under £1,000 buyers will receive the machine and MSS's integrated business pack *Amiga Works* which comes with a word processor, database, spreadsheet, sideways printing tool and comms capabilities.

There will also be a number of high quality games including world conquering strategy classic *Populous* and 'build you own metropolis game *Sim City*. Both will come with their own expansion disks which are designed to take advantage of the extra 500K of memory. The controversial *Battle of Britain* game *Their Finest Hour* will also be included. Art package *Deluxe Paint 3* has been thrown in as well, instead of the version 2 included in the A500 bundles.

Get the Most out of Your Amiga, a new book from Express's sister paper *Amiga Format* will also be included. The 172-page



• The new Amiga package on display last week at the Business Solutions '90 show.

book normally retails at £9.95 and is described as "the complete accessory for your Amiga including everything from product guides to handy tips".

The new machine does not include any new technology, but is configured to be useful to someone who wants to use the Amiga's multi-tasking system to run productivity packages as well as playing the more

sophisticated type of game.

Commodore says this is the first package to really cater for those people who enjoy stimulating games and need a computer for everyday use.

It sees it as a direct competitor to PC based systems like IBM's PS/1, and aims to prove that MS-DOS compatibility is not essential for the home/business user.

Love is... £1M of PCs

A lovestruck corporate computer buyer placed nearly £1 million worth of orders with dealer XL Datacomp - because he had fallen for the company's pretty sales executive.

Mansel Kersey admitted to Cardiff Crown Court that he had placed orders for mini computers worth £911,000 with Sarah Hoesli. She had been due to pick up commission of £35,000 as a result of the deals, until Kersey's bosses realised he was placing outrageous orders without approval.

A spokeswoman for AB Electronics said: "He became quite infatuated with her. In the end we lost a little money but we weren't left with the computers."

Hoesli's boss said she had taken the orders in good faith and done nothing wrong. Kersey, who had repeatedly sent Hoesli flowers and gifts, admitted forgery and attempted theft.



• Out of the Zoo and into the Garden: the programmers and friend.

Arc adds up

Archimedes specialist Clares has launched a windows based spreadsheet for the Acorn machine.

Called *Schema*, the package was developed in conjunction with Acorn and fully complies with the user-friendly RISCOS operating system. Users can draw in material from word processors, graphics and other spreadsheets.

"*Schema* is the first package for the Archimedes range where Acorn has been closely involved with the developer and publisher right from the word go," said the company's eponymous boss Dave Clare.

It costs £130. Call 0606 48511 for more details.

Slim Dynabook slips in

Dynabook's featherweight portable PC was launched last week. The 286 machine weighs just eight pounds but includes a 20 or 40Mb hard disk as standard.

It comes with an 11-inch diagonal detachable black-on-white VGA screen, the whole thing measuring 1.7 inches x 13.6 inches x 11 inches.

Dynabook has thrown in one year's fully comprehensive insurance for the machine (valid anywhere in the world) and one year's on-site maintenance in the UK. Security software is also included which will keep info safe from prying eyes.

The 1Mb of RAM on the motherboard can be upgraded by two, three or four times. An ingenious 'docking' device allows desktop peripherals to be attached easily.

Dynabook is clearly pitching its sleek PC at the



• Dynabook 286: "superbly designed and engineered" but it costs.

top end executive market, and initial reactions have been more enthusiastic than for most new laptops. It zips along at 16MHz and costs a heavyweight £3,295. Call 0628 473363.

Grow a game

Gardening and computing. They don't exactly sit comfortably together do they? But games publisher Electronic Zoo reckons on changing all that.

The firm is planning to publish a new program called *Magic Garden*. It's your job to turn the patch of greenery into a beautiful place with flower beds, a vegetable patch, a sumptuously laden greenhouse and a popular bird table. Really lovely.

Just to make the whole exercise just a little bit more exciting the Zoo has included a disgusting little band of gnomes who are bent on destruction of nice things. Stop these little blighters and your computer yard will look even better than the Blue Peter Garden.

Club AMOS born

The AMOS Club, for users of the Amiga games creator software, has put out its first newsletter.

You can join up and get the 20-page fact sheet by writing to The AMOS Club, 1 Lower Moor, Whidon Valley, Barnstaple, Devon EX32 8NW. It costs £10.

Console game makes it to the Amiga



• The Sega version, or is it the Amiga?

Sega Megadrive owners are already familiar with the excellent graphics and gameplay offered by *Tournament Golf*. Home computer owners are soon to be offered more of the same.

Publisher Elite says it is putting the finishing touches to the ST, Amiga, C64 and PC versions of the game. And the firm reckons owners of those machines won't be short-changed. We've got a screen shot from the Megadrive original and from the Amiga version. It's looking good isn't it?



• Or is this the Amiga? Ah well, never mind...

THE WEEK IN VIEW

...or should that be the last 100 weeks? As Express celebrates its biggest ever issue, Andy Storer casts an eye back over the first two years...

We were having a trawl through our first 100 issues this week and conducting a straw poll on the best stories we'd covered. For once, none of us knew where to begin. Processing computing news, week in, week out, is fascinating and compulsive employment almost bordering on the addictive. And with any kind of addiction, things tend to become a little blurred. 486, A3000, ARM3, TT, STE, Neo-Geo, Ncube, X-MP, CPC+, CD ROM, CD-I, DV-I, CDTV. See what I mean? We're almost in downtown TLA here. TLA? Three Letter Acronym matey.

Although you might end up too near to the wood to see the trees you still come across the same old chestnuts. Like the ST console story we ran a couple of weeks ago. That was the cover story on our first high street issue back in November '88. It might yet be our cover in November 91. After all, we announced the Amstrad

console a whole year before Alan Sugar did. But amidst all the blurr of technological change some advancements still stand out.

I've noticed it in the way that words like 'multimedia', 'interactive' and 'real time' used to be met with derision as pretentious twaddle whereas they're now passé. Now it's 'virtual', 'cyber' and 'nanotech'. You can just see it - 'IBM announces nanotech computer', 'Autodesk launches CyberCAD', 'Atari's secret virtual console'. But we'll leave them for the next 100 Express's.

In the meantime, we'll leave you with the launch we all agree is the most exciting this decade - the NeXT machine. Express will be receiving one around Christmas time for a full hands-on. And we believe it to be so

fabulously sexy that we're going to invite you the reader to come and have a play with it. After all, why should we get all the fun? ■



• Plus ça change... Expresses 0 and 98.

Hey! Get in touch with us! Express is always on the look out for news leads and tip-offs - and we'll pay you for passing them on too!

Also, if you have any burning ideas for features or surveys then drop us a line - remember, we cover every aspect of computing.

Express Access

You can contact us directly on:

Voice: 0225 442244

Fax: 0225 446019

(All news leads and tip offs will be treated in strictest confidence)

Or you can leave E-Mail for us on:

CIX @ astorer

GOLD @ 84:TXT152

COMPUSERVE @ 100012, 1075

PRESTEL @ P McDonald

ABC audited circulation January-June 1990:
21,251 copies per week

We regret we cannot enter into any personal correspondence. Technical enquiries should be addressed to Tech Tips at the address below.

While every care is taken in the preparation of New Computer Express, Future Publishing cannot be held responsible for the consequences of any errors that may occur.

© Future Publishing Ltd • 30 Monmouth Street, Bath BA1 2BW • Tel: 0225 442244 • Fax: 0225 446019 • Subscriptions: The Old Barn, Somerton, Somerset (0458) 74011 • Printed by Redwood Press, Melksham, Wilts • Distributed in UK and Eire by MMC Ltd (0483 211222), rest of world by Comag (0895 444055)

NEW COMPUTER EXPRESS

EDITOR • Andy Storer
DEPUTY EDITOR • Stuart Anderton
NEWS EDITOR • Colin Campbell
ART EDITOR • Amanda Cook
TECHNICAL EDITOR • Keith Pomfret
STAFF WRITER • Tim Smith
SUB-EDITOR • Steve Coulter
CONTRIBUTORS:
Steve Carey • Robin Alway • Jason Holborn • Rod Lawton • Hadyn Fitz-Williams • Mark Higham • Adam Waring • Richard Frederick • Sean Masterson • Ken Coumarin • Steve Gold
ASSISTANT PUBLISHER • Jane Richardson
CIRCULATION DIRECTOR • Sue Hartley
ADVERTISEMENT MANAGER • Helen Kirkhope
AD EXECUTIVES:
Phil Davenport • Tim Partridge • Cheryl Beesley • Jason Spice
AD ADMINISTRATION • Jo Fulton
AD PRODUCTION • Tracy O'Donnell
AD TYPESETTING • Terry Turner

PUBLISHER • Graeme Kidd

COMING NEXT THURSDAY

The robots are coming!

Which robot won the day at the Sterling Robolympics?

Drive my car

One day your dashboard could pack more MIPS than your micro

Cheap DTP

A new PC program could revolutionise DTP - for £99

PLUS

- Hot news
- Front End
- Games Week
- The Console Zone
- Whole Wired World
- Centrefold
- Tech Tips
- Circuit City
- Express On-line
- Express Mail
- The PD Column
- Columns for: Amiga, Arc, CPC, C64, PC, Spectrum and ST

AND

The chance to win the latest blockbusters from Virgin and get your hands on a train simulator

ATARI ST and C- AMIGA

Sixteen Bit Superdeals from the Sixteen Bit Specialists!

CUSTOMERS PLEASE NOTE! When comparing prices remember ours include fast delivery by courier.

NEW!!

520STE Power Pack £349.00

Inc. VAT and Next Day Delivery

Power Pack includes:

- ★ 520STE 512K Keyboard with Built-in 1 Megabyte disk drive and TV Modulator
- ★ Over £550 worth of games software, including OutRun, Gauntlet 2, R-Type, Space Harrier, Super HangOn and 16 more Top Games
- ★ Organiser Business Software including WORDPROCESSOR, SPREADSHEET and DATABASE
- ★ First BASIC and First Music Utility Software
- ★ FREE JOYSTICK AND FREE MOUSE MAT WORTH £4.95
- ★ All leads, manuals PLUS MOUSE and free mains plug!

520STFM DISCOVERY PACK £279.00

NEW

NEW! fantastic value for money pack includes:

- ★ 520 STFM 512K memory keyboard with built in 1 megabyte double sided disk drive and TV modulator
- ★ Game Pack including OUTRUN, SPACE HARRIER, CARRIER COMMAND and BOMB JACK
- ★ UTILITY PROGRAMMES inc STOS GAME CREATOR, NEOCHROME painting package and FIRST BASIC programming language
- ★ ST tutorial programme and 'DISCOVER YOUR ST' beginners guide to the ST computer
- ★ PLUS MOUSE, MOUSE MAT, MANUALS, ALL LEADS, METACOMCO BASIC AND MAINS PLUG!

1040STE BUSINESS PACK £449.00

- ★ Includes the new 1 megabyte 1040STE keyboard plus over £200 worth of business software including K-WORD wordprocessing software, K-CALC spread sheet and K-DATA Database software Also includes Metacomco BASIC, Mouse Pad, all Leads, Manuals and Mouse.

MEGA 1 BUSINESS Pack £529.00

Features:

- ★ Separate Keyboard and System Unit
 - ★ Inc. all software supplied with 1040 STE Business Pack
 - ★ Blitter chip installed for faster graphics
- Inc SM124 Mono Monitor.....£628.00*

ACCESSORIES

Quickshot II Turbo Joystick.....£9.95	Branded Memorex 3.5" DSDD Disks
Competition Pro 5000 Joystick£13.95	Box of 10£13.95
Competition Pro with Autofire£14.95	Memorex Disk Box
Konix Speedking Joystick.....£11.95	For 40 3.5" Disks£8.95
Red Mouse Mat with Amiga logo£5.95	Amiga 1/2 Meg Expansion.....£99.95
Plain blue Mouse Mat£4.95	Control Centre Atari or Amiga£44.95
Naksha Mouse for ST, Amiga or PC.....£29.95	
Contriver Amiga and ST Mouse with FREE Holder and Mouse Pad £20.95	

PRINTERS

Star LC10 including interface lead for ST/Amiga.....	£169.00
Star LC10 colour including interface lead for ST/Amiga.....	£219.00
Star LC24-10 24 pin including lead for ST/Amiga.....	£249.00
Citizen 120D + NLQ including interface lead for ST/Amiga.....	£139.00
Citizen Swift 24 pin letter quality including lead for ST/Amiga.....	£309.00
Colour Version of Swift 24 pin.....	£349.00

AMIGA A500 SCREEN GEMS PACK featuring the exclusive new DIGISTAR pack! £399.00

NEW!

Inc. VAT and Next Day Delivery

SCREEN GEMS PACK includes:

- ★ Amiga A500 512K Keyboard with built-in 1 Megabyte double sided disk drive.
- ★ Free TV modulator worth £24.99 allowing you to use the Amiga with a normal TV.
- ★ Amazing 4096 colour graphics and incredible Digital Stereo sound!
- ★ Deluxe Paint II painting package worth £70!
- ★ Outstanding new Shadow of the Beast II game with breathtaking graphics!
- ★ New Days of Thunder game based on the Stock Car racing film.
- ★ Back to the Future II game based on the film!
- ★ Night Breed adventure game
- ★ Amiga Basic, Amiga EXTRAS 1.3, Workbench 1.3 & Step by Step Tutorial
- ...and the incredible exclusive DIGISTAR pack including:
10 blank disks and disk box, high quality mouse, joystick - PLUS £224.50 worth of extra games software comprising:

TITLE	SOFTWARE HOUSE	CATEGORY OF GAME	RRP
DATASTORM	VISIONARY DESIGN	ARCADE Space action fighting game	£19.95
DUNGEON QUEST	GAINSTAR	GRAPHIC ADVENTURE Exploration adventure with graphics	£24.95
E-MOTION	US GOLD	ARCADE Ball based puzzle game	£19.95
GRAND MONSTER SLAM	RAINBOW ARTS	SPORT SIMULATIONS Football contest using animated monsters	£19.95
KID GLOVES	MILLENNIUM	ARCADE Action adventure hack and slash game	£24.95
POWERPLAY	ARCANA	BOARD AND STRATEGY Graphical quiz game	£19.95
RVF HONDA	MICROSTYLE	ADVANCED SIMULATION Motorbike simulation	£24.95
SHUFFLEPUCK CAFE	DOMARK	ARCADE High tech air hockey game	£19.95
SOCCER	MICROPROSE	SPORTS SIMULATION Realistic soccer simulation game	£24.95
TOWER OF BABEL	FIREBIRD	ADVANCED SIMULATION Interactive strategy game with 3D graphics	£24.95

AMIGA 2000 IBM PC AND AMIGA COMPATIBLE TWO COMPUTERS FOR THE PRICE OF ONE! £1349 (Inc VAT and next day delivery) (£1173.04 exc. VAT)

FEATURES:

- ★ Separate keyboard & System Unit
- ★ 1 Megabyte RAM - expandable
- ★ Built-in 3.5 Disk Drive loads Amiga Software
- ★ Built-in 5.25 Disk Drive loads IBM Software
- ★ Built-in 20MB Hard Drive stores IBM & Amiga Software
- ★ 4096 Colours & Digital Stereo Sound
- ★ Runs IBM software with built-in XT Bridgeboard
- ★ IBM and Amiga Expansion Slots

EXTERNAL DISK DRIVES

Cumana 1 Megabyte Atari or Amiga	£89.95
NEC 1 Megabyte Atari or Amiga	£79.95
Atari SF314 1 Megabyte.....	£139.00
Amiga A1010 1 Megabyte.....	£99.95
Atari Megafile 30 Hard Disk.....	£439.00
New! Commodore A590 20 meg hard disk.....	£369.00
A590 Hard Disk + Memory Upgrade installed	Phone

MONITORS

Commodore Amiga A1084 stereo Monitor inc lead	£259.00
Atari SC1224 Colour Monitor inc lead.....	£259.00
Atari SM124 Mono Monitor including lead.....	£119.00
Philips CM8833 stereo colour monitor inc. lead for ST or Amiga	£249.00

24 HOUR CREDIT CARD HOTLINE • 0908 378008

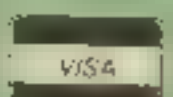
To order either call the orderline above with your Credit Card details OR make a cheque or P.O. payable to:
Digicom Computer Services Ltd and send it with your order to the address below. Showroom open at the address below Mon-Sat 10.00am - 6.00pm.

DIGICOM

Unit 36, Wharfside, Fenny Stratford, MILTON KEYNES, MK2 2AZ.

All prices include VAT and delivery by courier

Licensed Credit Brokers * Written quotations available on request APR 34.5% Variable.



TCB TRACKER



Turn Your ST Into A Powerful Music Studio With The **-TCB TRACKER-**

The **-TCB TRACKER-** is a 4 channel music synthesizer, drum machine, and mixing studio that allows you to play back 4 different samples all at the same time in glorious stereo (STE only) without any special hardware. It will run on any ST and will automatically make use of any extra memory, disk drives and MIDI equipment that you have.

The **-TCB TRACKER-** uses special techniques to replay all 4 channels simultaneously at 10KHz to give crystal clear sound. Not only is the music clear, but it is also very loud. Music that is this clear and loud isn't normally achieved without using all the computers processor time. The **-TCB TRACKER-** will only use a maximum of 28% leaving plenty of time for the computer to do other things. This makes the **-TCB TRACKER-** perfect demo writers, professional programmers and for the person who just wants an easy to use music program.

-TCB TRACKER- FEATURES

- * 4 CHANNELS OF SAMPLED SOUND
 - * SIMPLE KEYBOARD ENTRY
 - * FULL MIDI COMPATIBILITY
- * TURNS YOUR ST INTO A 3 OCTAVE KEYBOARD
- * USES A MAXIMUM OF 28% PROCESSOR TIME
 - * STEREO SOUND ON THE STE
 - * AMIGA BASS
- * SIMPLE KEYBOARD SHORT CUTS
- * STORES UP TO 16 SAMPLES IN MEMORY
 - * POWERFUL VOLUME CONTROL
 - * TUNING OF SAMPLES
- * SIMPLE TO ADD TO YOUR OWN PROGRAMS
 - * OVER 20 CUT AND PASTE FUNCTIONS
 - * ON SCREEN HELP

MIDI Compatibility

If you own a MIDI keyboard, then using it with the **-TCB TRACKER-** is no problem. Simply select a channel, go to MIDI mode, press record and then start playing. The **-TCB TRACKER-** uses MIDI CLOCK for perfect timing.

MPH Support

MPH will be supporting the REGISTERED users of this product in every possible way. There will be extra disks of .MOD and .SPL files, a quarterly newsletter giving tips on how to get the most out of the programme and updates of the software, and finally, a monthly competition for the best piece of music created with the **-TCB TRACKER-**.

ORDER NOW FROM MPH FOR ONLY £39.95
Tel: 0603 503382



T R A C K E R

■ Amiga muso

In the Amiga column a while back you mentioned an American company called Hologramophone Research, of Miami Florida. Where do they get these corporate-overkill names from? Perhaps they operate from somebody's garage and want to appear like a mega-conglomerate.

Anyway, I'd like to check out their program called *Hyperchord*, so could you furnish me with their name and address?

Ian Robson, High Wycombe, Bucks

No sooner said than done Ian. The trendily-named software heroes that you want to track down can be found at 638 Summit Avenue, St Paul, MN 55015 USA, and you can call them from the UK by dialling 010 612 228 9142 but remember they are about five hours behind us, so don't start calling until about 2.30 in the afternoon.

And don't mock people who start out from the back of a garage. The who guys who set up the company that now produces the wonderful machine I use to write these pages first set up shop in a garage. Without them, there wouldn't be an Apple Macintosh IIx.

H F-W

■ Game hunt

I recently played a game called *Kingdoms of England* on my cousin's Amiga. I think it was published by Incognito Software, but I could be wrong about that.

The idea of the game is to conquer as many counties of England as you can, until all the other players are forced out of the game.

Anyway, to get back to the point, ■ it



EXPRESS MAIL

With your regular host, Haydn Fitz-Williams, the man with the fivers to give away.

Write and tell HFW what you think about anything under the Sun! Reach him at: **Express Mail, 30 Monmouth Street, Bath BA1 2BW.** Sorry, no personal replies, even with an SAE, as we're too busy writing the magazine.

available for the Atari ST, as I haven't seen it anywhere?

Jonathan Menezes, East Ham, London

Hmm. Some serious scratching of the brain went on when I put your question to our resident games experts. Eventually we worked out that Gainstar was probably the company that produced the object of your desire – but they seem to be no more. Little chance of helping you out it seemed.

Then it all came flooding back – *Kingdoms of England* was a game that owed ■ lot of inspiration ■ that Cinemaware classic, *Defender of the Crown*. A copy of that would see you right, I thought – but is it still available? A bit more digging, and we found that virtually nobody had stocks of ST *Defender* –

UK Publisher Mirrorsoft apparently ceased to supply it a while ago. So it was time to use the old Fitz-Williams influence and get on the phone to Mirrorsoft.

Bad news, Jonathan! *Defender* is indeed not on the Mirrorsoft catalogue ■ the moment, and neither is the one compilation that included *Defender*. But Mirrorsoft's friendly PR person Cathy Campos searched through her drawers and found an ST copy of the *Triad* compilation, which features *Defender of the Crown*, *Barbarian* and *Starglider*. And by the time you read this, Jonathan, it should be in your possession with Mirrorsoft's compliments. How's that for service?

And if you like *Kingdoms of England* and *Defender of the Crown*,

look out for the Level 9 game *Champion of the Raj*, which should be in the shops in a few weeks' time. It's set in India at the start of the 19th century and should suit your tastes exactly. But you'll have to buy that Mirrorsoft game for yourself Mr M – there's a limit to what even I can do...

H F-W

■ Man hunt

About a week ago I sold a number ■ programs and disks to a chap who lives in Werrington, Peterborough. Unfortunately, he did not collect a Disc Doctor chip which he'd paid for and, being an honest sort, I'd like to get it to him. We didn't exchange names and addresses when we met, but he drives a pale blue Reliant Robin and he's a regular reader of *Express*. Indeed, he introduced me to your magazine, so if he's out there, please get in touch! Mr C Blake, 21 Svenskaby, Orton Winslow, Peterborough.

■ Out of date?

I bought a copy of the September issue of *NCE* from W H Smiths on Friday 21st September. Whilst I was reading it, I saw the competition to win an arcade machine (the younger family members would love one). I completed the answer form, only to discover the closing date had passed (17th September). ■ this the fault of the newsagent for selling the magazine out of date, or was the closing date too soon?

If the latter was true, then perhaps it would have been fairer to keep the competition open until at least the publication date of the next issue. With the vain hope that my entry could still be included, I have enclosed my answers.

R H Le'Burn, Bracknell, Berks

Maybe you are ■ spot confused Mr Le'Burn. *New Computer Express* is a weekly magazine – so we had four issues during the month of September. The issue you speak of went on sale on 13th September, and then another one

■ Shameless praise will get you everywhere



• Spot the deliberate mistake on this keyboard sent in by Ernest Smith. Nice one Commodore!

The loss of the machine specific columns that the letters you've printed recently refer to is of course sad for the owners of the more obscure machines, but they shouldn't use the departure of the columns as a reason to deprive themselves of reading an excellent computer-related magazine.

There are, I believe, many user group magazines for the MSX and QL which are produced by enthusiasts, which will surely fill the gap left by *NCE*.

At the moment I own an Atari 520ST but this does not stop me from reading and enjoying the other machine-specific columns, including the Amiga column.

In the future, it may well be the Atari or Amiga columns that disappear from your pages, but the content of *Express* would still be great enough for me to find it worth the purchase price.

Keep up the good work on *Express*.

Ernest Smith, Yorkswood, Birmingham

Well for such creepy crawling I can't offer you a fiver – much as the publisher would no doubt like me to. I'd be inundated with similar letters if I did.

But I'm glad to hear you enjoy *Express* so much – you seem to have a sensible attitude to owning and using a computer Ernest. It's meant to be fun after all, not partisan war.

And there's little chance of us dropping the Amiga or ST columns before 1995 I reckon, and you and the 8-bit C64, CPC and Spectrum owners are going to be safe for a while...

H F-W

MAIL SHORTS

■ SAM whinge

...the SAM is going to become very popular in the homes - games and serious software is widely becoming available and the future looks great for it. So why throw out the column? I have now cancelled my order until I see SAM return.

RHF Smith, Watford, Herts

Cheerio then. You'll miss out on the latest SAM news that we'll be printing in the main body of the magazine, and you won't get to hear of the doings of the users groups that we'll be reporting on in Shopping Express. Your loss, not ours. And this is the last wingeing letter I'm going to use from small-minded users of small-beer machines.

H F-W

■ Minority oppression

...I have never met a MSX, BBC, QL, PCW or SAM Coupé owner in my life. These moaning minnies should go out and buy a decent computer instead of hanging on to their 'door wedges'. I support your decision to drop their microscopic columns. Long live the Amiga!

A liberated intellectual from the beloved county of Tyne and Wear

Surprised you didn't put an 'r' in 'Intellectual' really. You must have lived a really sheltered life...

■ Price is right?

How could you be so cruel? So ruthless of you to spring this price increase upon young and tender hearts. The embarrassment of having to rake the depths of my trouser pockets and other secret places for the extra cash in front of gawping middle-aged women while standing in a packed newsagents in Sunderland is no fun, I can tell you.

Martin Smith, Sunderland

Oh really now. We gave you fair warning.

■ Protexat prat?

I read the anonymous article in Issue 98, entitled 'Protexat Survives'.

If Protexat 5 has a spelling checker, why is 'complemented' spelled wrongly?

John South, Poole

It wasn't. We used the wrong word, but we spelt it right. Protexat doesn't have a context checker, you see... it's a fair cop, though and wrists have been slapped.

H F-W

went on sale on the 20th September - perhaps the latest issue hadn't quite reached Smiths on the day you went shopping.

Anyway, yes we did set the closing date a little early, and as you might have read last week, we extended it to 1st October. Your entry went into the draw, and who knows... you might have won. You'll just have to buy next week's issue to find out!

Our publisher tells me to suggest that you might like to consider placing a weekly order for *Express*. Unless you're an MSX, Memotech or Sord M5 owner, you'll find plenty of relevant material in our pages, and as of this issue we're running a monthly competition as well as the regular weekly giveaways. End of commercial.

H F-W

■ Four computer man

I am 13 years old and have a Newbrain (bet you don't know what that is), a BBC, a Spectrum and an Amstrad PC. Until a few months ago I bought separate magazines for the latter three machines, but now I only buy your magazine. I was sorry to see the Beeb column go, but realise it is getting a bit long in the tooth. Keep up the good work!

R Morgan, Tyne and Wear

Oh yes I do know what a Newbrain is. And what a Sord, a Memotech, a Jupiter Ace, an Oric and a Colecovision is. And I know the difference between a Flan, an Egan and a tealray. So don't come it with me pal.

Four computers at 13 is a pretty good collection. Anyone else out there care to win a couple of tenners by sending me a picture of their computer collection? The dosh will go to the person with the most machines.

H F-W

■ Reformed character?

After seeing the adverts placed by FAST in your magazine, and also as a result of reading articles about the pirating of software, I have seen the error of my ways. I would like to do something to redress the balance (repent my sins if you like). I am in a position to supply FAST with the names and addresses of some of the major cracking and pirating crews on the Amiga, and some ST ones as well.

The reason I'm writing, is because at the moment I have not been able to replace all of my pirated software with either the original versions or suitable PD equivalents, but I'm still trying to eradicate all pirate software from my disk collection. Until then, will FAST be prepared to 'look the other way' regarding the pirate software I still have, in exchange for the above-mentioned information?

For obvious reasons, I am unable to supply my name and address, but if you could find your way clear to printing this in your letters page, then maybe it might

just spur others into doing something about pirate software.

'Xeet'

Good start, but you still have a little way to go, don't you? Before thinking about 'shopping' other people, you would do well to clean up your own act properly. Talk of 'not being able' to replace pirated software simply won't wash as an excuse for hanging on to it - it's stolen property, and all you have to do is reformat the disks you've used to stash the ill-gotten gains of your thieving. You wouldn't seriously expect the police to 'look the other way' and let you hang on to the proceeds of a shoplifting spree if you tipped them off to a couple of burglaries, now would you?

Go on, do it now - reformat those disks and trash those photocopied manuals. You know you'll feel better for it.

Then by all means, get in touch with FAST.

H F-W

■ Nostalgic interlude

I have two things to say in this letter. First, I own an Amiga. Second, 8-bit games are better than 16-bit games (Ducks to avoid torrent of rotten tomatoes).

This may seem to be a ridiculous statement, but in terms of the capabilities of the computer it is true. What now seems aeons ago, I owned a Spectrum. The first game I ever bought was *Planetoids* by Melbourne House. This was followed by a torrent of other classics such as *Atic Atac* and *Jet Set Willy*, each better than the last. And if I now look at some of the Spectrum conversions being offered by software houses - titles such as *Chase HQ* spring to mind - I am absolutely stunned.

The fact is that the best games only come out after programmers have found all the fancy tricks and twiddles to impress people with. Then they can get down to the serious business of writing a good game.

What I say to the people who continue to say that software is too expensive and that their computer is the best, is: 'shut up and wait a couple of years'. You'll soon be looking back and remembering how good that 'game of the week' was in 1990 - and for only £25, you'll remember what a bargain it was.

Matthew Millar, York

Ah yes, I remember those days well Matthew. The days when we Spectrum owners waited with baited breath for the next release from Ultimate Play the Game and were astounded by what they managed to squeeze out of our rubber-keyed chum. It's a shame that a lot of the fun seems to have gone out of the games world - but maybe we've all got that bit older now.

At the moment I'm waiting with baited breath for the latest release of Quark XPress, but I won't be as excited as I was when I tore the shrink wrapping off the *Knight Lore* cassette.

Meanwhile I'm sending you a couple of fivers, Matthew. One for your letter that brought memories flooding back to me at my Mac keyboard, and another for your picture of the Amiga 500-2P you seem to own. Anyone else got some fond memories they'd like to share or a picture of their wacky computer they'd like to send me in the hope of collecting a fiver?

H F-W

■ Technical debate

William Poel is a leading light in the computer industry, so when he says in Issue 98's Opinion that users don't understand that 386/486 PCs are not just faster than ATs, no-one would dare demur, especially as he immediately says something else that shows that even the experts don't always understand the new kit.

The memory management feature which forces people to throw away 256K SIMM modules when expanding RAM in 386 PCs is not based on a simple con trick as he seems to believe, but is influenced by the desire for zero wait-state memory. Processors operating at speeds of 20MHz or faster simply outrun normal, affordable DRAMs, which start panting at about 16MHz (for 80ns chips). One way around this is to 'interleave' the memory, so that adjacent memory addresses are actually in different chips (the other way is expensive fast cache memory systems).

Interleaving means each chip only has to respond to every other memory access, so it only needs to be half as fast as the processor. Without interleaving, the processor needs to be hobbled by wait states during memory accesses, or the RAM falls over.

To make this trick work requires a more complex memory addressing system than Mr Poel envisages because interleaving requires symmetrical banks of RAM. My own 386 can have 1, 2, 4 or 8 Mb fitted to the main board, but only the 2Mb and 8Mb configurations allow interleaving.

I have a full set of 256K SIMMs giving 2Mb. If I had started with 1Mb SIMMs, I would have had to begin with at least 4Mb, and the computer would have run slowly because this configuration doesn't interleave. I wouldn't have been able to add one more Mb at a time, either, but only another 4Mb at once, because you are not allowed to partially fill the SIMM 'banks'.

This isn't down to industry 'rascals' supplying me a shoddily specified box, but a feature built into the main board architecture of my standard Taiwanese clone. Does it have to be? I don't know, but as everyone seems to do it this way, I expect it is necessary.

So, insist on 1Mb SIMMs if you wish, but be prepared to shell out for a bunch of them. They have 4Mb SIMMs now, too, so maybe the 1Mb ones are also a con?

Iolo Davidson, Tetbury, Gloucestershire

Nicely argued, Iolo, so here's four of my fivers to reward your lucid prose.

H F-W

UK HOME COMPUTERS

AMSTRAD PPC640S

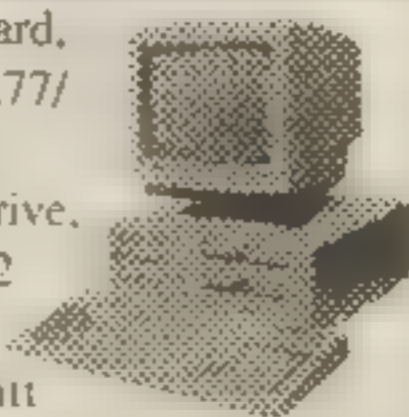
640K RAM, Serial & Parallel Interface, External Disk Drive interface, External CGA Compatible monitor output, Mains, battery & cigar adaptor powered, MS-DOS, PPC Organizer, & MIRROR COMMS Software, True IBM Compatible, Internal 3.5" 720K Disk Drive (Option for second drive), Built-in modem (Hayes compatible), Free carry case and full manuals.



OUR PRICE £399.95p
Fully Inc.

SAMSUNG PC/XT

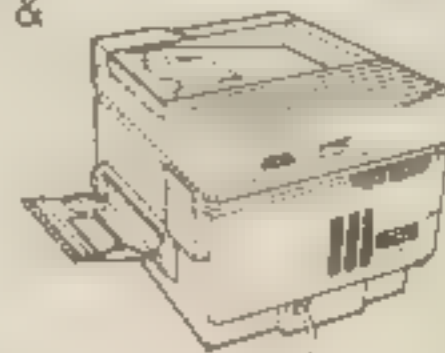
512K RAM, Full-Size keyboard, MS-DOS 3.2, GW-BASIC, 4.77/10MHz Clock Speed, Battery Back-Up, Single 360k disk drive, Hercules display Card, RS232 & Parallel Ports, 8087 Co-Processor socket, 90 Watt switched Power Supply, Small Foot Print, 4 Empty Expansion Slots, 1 Empty Disk Drive Slot, Free Ex-Display Mono Monitor.



Single Drive 20 Mb Hard Disk
£419.95p **£589.95p**
inc. overnight carriage

CITIZEN LASER OVERTURE 110+

At last! an affordable laser printer. 512k memory, Epson, IBM, & Diablo compatible, 10 pages per min. Parallel & Serial I/F, 300x300 dots per inch. Landscape or portrait printing, 12 Months on-site warranty. Send for further details, or order TODAY!



OUR PRICE £804.95p
Including VAT, Carriage & Warranty

"ABILITY"

Made by MIGENT, the complete integrated package for the PC & all clones. 5.25" disks, the package offers a wordprocessor, database, spreadsheet, graphics package & communications software. And of course, all programs are integrated. Supports LOTUS 1-2-3 & hercules graphics cards. This package originally retailed at over £100.00p, and still offered at £60-£65 everywhere. Now check out our price.

OUR PRICE £29.95p
inc. VAT & Postage

3.5" UNCASSED DRIVES

NEC 1036A suitable as PC internal disk drive. Also suitable as ATARI ST replacement internal disk drive (ST Instructions supplied) 720K formatted.

£53.00p inc P&P

CITIZEN Slimline 720k. Suitable as IBM internal, or as second drive for the AMSTRAD PPC Range

£63.00p inc P&P

"WINDOWS"

Microsoft's WINDOWS 286, Ver 2.1. Full manuals, 5.25" disks. Brand New & unregistered. Currently selling for approximately £55.00p plus VAT.

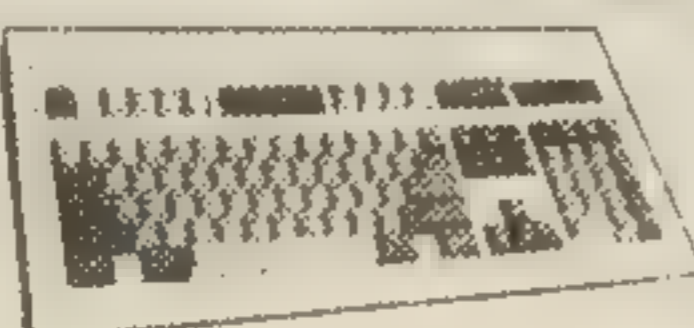
£29.95p plus £3.05p Postage

WINDOWS 386 Ver. 2.1

£49.95p plus £3.05 Postage

PC XT/AT KEYBOARDS

102-key keyboard made by EPSON. Full UK Spec. with 5 pin connector.



Adjustable feet allow an elevated typing position. Self-sensing between XT or AT operation. Normally retailing at over £100.00p

£39.95p

Postage & Packing £4.05p

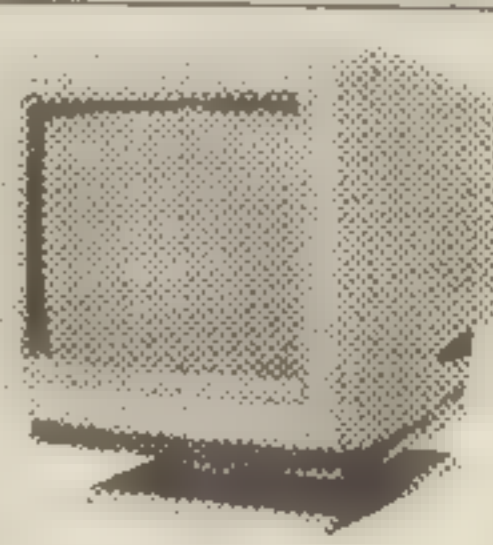
5.25" UNCASSED DRIVES

Made by EPSON. These top-quality 5.25" disk drives are Brand New. Suitable as second drives for PC's or as PC replacement drives. 360k formatted, beige fronts. Tremendous value at our special low price.

£49.95p plus £3.05p Postage

14" COLOUR MONITORS

Ex-display, 14" CGA colour monitors made by SAMSUNG. Tilt & Swivel Base, & Green text switch, Data & power cable. For PC's & Clones



£99.95p

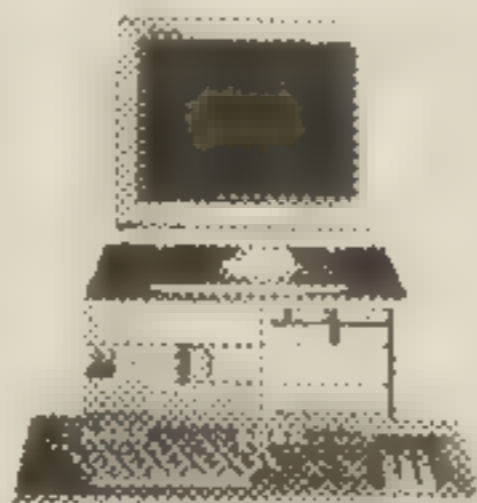
14" EGA £199.95p

12" VGA MONO £69.95p

Carriage £10.00p per monitor

SAMSUNG 6000/1 PC/AT

A top-branded PC/AT at an XT price. 80286 Processor with a 6/10 MHz speed, 1Mb RAM, 6 expansion slots, 1.2 Mb 5.25" floppy, 102 key keyboard, battery back-up, Hercules/Monochrome Video Card, RS232 & Parallel Ports, MS-DOS 3.2 & GW-Basic.



£599.95p
inc. VAT & Carriage

FREE WINDOWS WITH THIS COMPUTER

Our all-in price of £599.95p includes the Brand New Samsung, an Ex-Display Mono Monitor, & O/N Delivery.

BARGAIN BASEMENT-TO CLEAR

STAR NB24-15 CUT SHEET FEEDER **£79.95**
GW-BASIC (MICROSOFT) **£14.95**
PC MEMORY BOARDS (unpopulated) **£9.95**
SAMSUNG 14" EX-DISPLAY CGA MONITORS **£99.95**

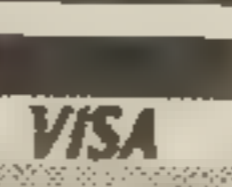
COMMODORE C64 MUSIC SYSTEM **£29.95**
SAMSUNG 12" EX-DISPLAY MONO MONITORS **£49.95**

ZENITH EAZY-PC MEMORY MODULE **£33.00**
SAMSUNG 12" VGA MONO MONITOR (Ex-display, tilt & swivel base) **£69.95**

We have numerous PC items to clear. Send now for our full list. Phone for availability and postage charges for the above items.



VISA/ACCESS orders welcome. Prices subject to change without notice. All transactions are subject to our standard conditions of Sale, available upon request. Personal callers welcome by appointment. All prices include VAT. All goods Brand New unless expressly stated otherwise



UK HOME COMPUTERS

82 CHURCHWARD AVENUE,
SWINDON, WILTS, SN2 1NH.
0793 695034

MEMORY MAGIC

Is 512K not enough? A megabyte sound poxy? Keith Pomfret staggered under the weight of the RAM chips available to try out a total of 14 megabytes of Amiga memory on three cards.

The Amiga 500 was designed with expansion in mind. The trapdoor underneath, originally intended for a half-Mb upgrade, is positively bursting ■ the seams with upgrades of up to 1.5Mb, and the expansion slot on the side can play host to even larger amounts of memory. We looked at a pair of cards that can hide a total of 6Mb underneath and an external memory expansion box that lets you add eight megabytes.

RAM-IN-A-BOX

The Cortex external 8Mb memory expansion is distributed by Memory Expansion Systems. It weighs in ■ a hefty £805, including the government's share of VAT. It's a lot of money, but you get a good return for your investment.

The Cortex memory expansion is a small cream brick-shaped box that plugs into the expansion slot on the left of the machine. It measures just over five inches square and stands an inch and a bit proud of the desk.

Because the extra 8Mb of RAM can get a little power hungry, the Cortex card comes with its own power supply and takes power from the mains via a transformer, rather than trying to suck the requisite volts from the A500.

For those not needing to go for an immediate 8Mb, the Cortex board is available populated at 2Mb and 4Mb and can be simply upgraded at a later date. If you think you can beat the prices of ■ populated board,

Memory Expansions will supply the board bare so that you can add your own DRAMs.

Fitting the board is simplicity itself. It plugs straight into the expansion port of the A500. Plug in the 1-amp mains supply and boot up your Amiga in the normal way. For the purpose of our test an A590 hard drive was attached to the through-port to see if things warmed up. For those who don't have any extra peripherals to add to the expansion port, a blanking plate protects the through-connector.

With a hard disk drive in place, the A500 becomes ■ completely different beast with the gargantuan memory giving enhanced scope.

The Amiga excels at multi-tasking but memory-intensive jobs such as graphics animation, sound sampling and high resolution video come into their own on a machine with a lot of spare RAM. The bare 512K on an A500 is barely enough to run some single applications, and the multi-tasking abilities of the smaller Amigas go largely unsung. With the extra 8Mb in place, it ■ no problem to open up multiple files on a word-processor, download files from ■ bulletin board, lay out DTP pages and run an animation demo all at the same time.

Of course something has to suffer ■ the expense of multi-tasking and in this case it is speed. All of the tasks share the same processor, and must take their turn. In a word processor which isn't very processor intensive the slow-down is bearable, but the animation demo became positively pedestrian.

For a person on a limited budget, it's worth considering the bare board and upgrading, but if there's enough cash in the coffers, the full 8Mb takes ■ lot of beating.

UNDER THE TRAPDOOR

The slot under the A500 was designed for the half-Mb upgrade and not much more, but Dutch computer whizz-kids have managed to put ■ complete PC and 512K of RAM on a card to fit in the slot, and memory masters have squeezed up to 1.5Mb in by accessing the gate arrays directly.

The AdRAM 540 board bears more than a passing resemblance to some of the 1.5Mb boards already available. Its battery looked familiar; rows of DRAM chips and extra board on the end of a short ribbon cable to patch to Gary - the Amiga's custom gate array. But a count-up of the DRAMs reveals that this is no 1.5Mb board. It is available from a bare unpopulated board to a full 4Mb, in increments of half a megabyte. The review model was fully populated and came with the AdRAM 560D, a piggy-back board that gets the trapdoor RAM quotient up to a full 6Mb.

To fit the board, Gary was gently removed (using a non conductive extractor), and the ancillary board was placed in its slot. Gary was then plugged into the ancillary board's slot and the AdRAM 540, with a AdRAM 560 riding piggy-back, was inserted in the expansion slot under the trapdoor.

All of this RAM can get power-hungry, but the unexpanded A500 seemed to cope OK during ■ four-day test cycle. The board wasn't tried with any power-hungry peripherals, and indeed it would be no surprise if ■ turned up its toes in that instance.

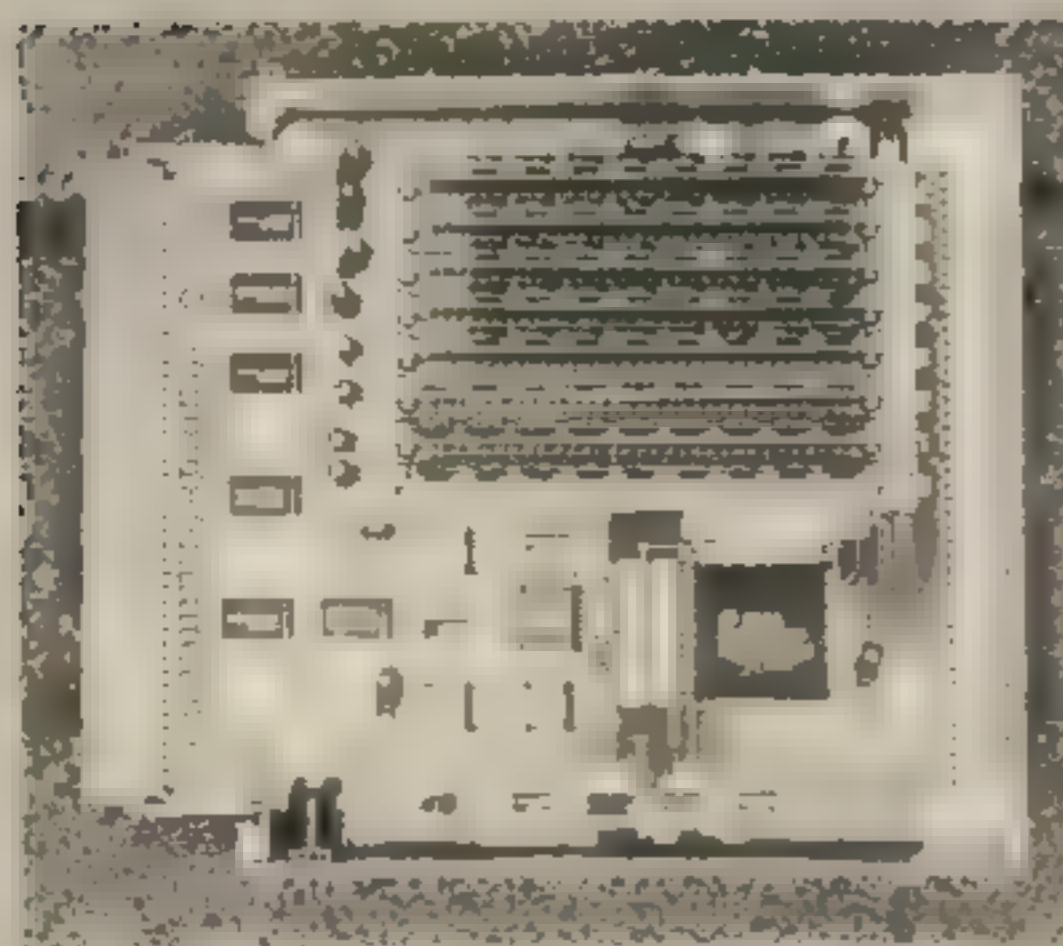
The board works OK and provided oodles of extra memory. If I were using one regularly on ■ machine with peripherals I would replace the machine's power supply with something a little more substantial.

One of the problems with memory upgrades for the Amiga is that not all of them behave in a manner prescribed in the Gospel according to St Commodore.

Simply, this means that instead of allowing themselves to be paged wherever the system chooses, they pick a spot and expect the system to work around them.

While the Cortex system follows the rules, the AdRAM doesn't, which could lay it open to compatibility problems with add-on hardware. ■

EXPANDING OPTIONS



• The Cortex board (left) can up your Amiga's memory by up to 8Mb, a really useful amount, while the AdRAM can add 6Mb internally in the trapdoor underneath the machine. With either of these boards in place the Amiga's multi-tasking abilities come into their own.

AT A GLANCE

Cortex A500/A1000 memory expansion

2Mb	£343.85
4Mb	£481.85
6Mb	£803.85
Unpopulated	£218.15

Cortex boards are distributed by Memory Expansion Systems on 051-236 0480

AdRAM540

Bare	£99.99
4Mb	£499

Also available in half megabyte increments on request

AdRAM560 additional expansion board

£149.99 bare
Not available populated

AdRAM is distributed by Third Coast Technologies on 0257 426464

★ POCKET SIZED ★ PC-COMPATIBLE ★ PERSONAL ORGANISER ★



ATARI Portfolio



THE PC IN YOUR POCKET

The new Portfolio from Atari is the world's first pocket-sized electronic organiser that is also a powerful PC compatible computer, with a full QWERTY keyboard and scrolling 80x25 character display.

Portfolio includes everything you would expect from an electronic organiser - an address and telephone book, time manager, diary and sophisticated calculator.

Portfolio also includes several functions that you would not expect - a spreadsheet for your personal budget and expense records, as well as a text processor for typing memos and letters.

And, because Atari's Portfolio is PC compatible, it can communicate with your desktop PC at home, or in the office. You can transfer files from one to the other, to enable you to update your reports and figures with the Portfolio while you are on the move.

FOR
ONLY

£199

INC
VAT

SPECIFICATION

- **Processor:** Intel 80C88 at 4.9152Mhz.
- **Operating System:** Compatible with MS-DOS 2.11.
- **Internal ROM:** 256K containing BIOS, operating system and applications suite.
- **RAM:** 128K with an internal RAM disk, configurable from 8K. Externally expandable to 640K RAM.
- **Keyboard:** 63 keys, QWERTY, IBM PC BIOS compatible. Buried numeric pad and function keys. Optional key click.
- **Character Set:** Extended IBM ASCII (255 characters).
- **Mass storage:** credit card sized memory cards (32K or 64K or 128K RAM).
- **Display:** Graphics LCD, supertwist technology, MDA compatible, 40 columns x 8 lines, 240 x 64 pixels (with the option to window a full 80 x 25 character display). Keyboard controlled contrast.
- **Peripherals:** pin expansion BUS take serial and parallel ports and memory expansion units.
- **Size:** 8" x 4" x 1" (200mm x 105mm x 29mm).
- **Weight:** 495 grammes (with batteries).
- **Applications:** calendar and diary, address and phone book, Lotus 1-2-3 compatible spreadsheet, text processor, communications software.

5 BUILT-IN APPLICATIONS! TO GET YOU ORGANISED!

To get you started, Portfolio comes with a suite of five useful functions built-in, all accessible from a simple menu display.

TIME MANAGER

More than just an electronic diary, the Portfolio Time Manager enables you to plan your appointments via a comprehensive calendar and diary. It can even be programmed to sound an audible alarm at specific times to remind you of important appointments.

CALCULATOR

Your Portfolio will be invaluable in the office or at home as a powerful pocket calculator. It has a full range of functions, including factorial,

power and root calculations, all with multi display formats and memories.

ADDRESS BOOK & DIALLER

Portfolio has a complete address book facility that allows you to store hundreds of addresses and phone numbers. And, with the touch of a button, you can retrieve any one of them, or search for a specific grouping, such as "all Italian restaurants". And, when you are ready to book your table, hold your Portfolio to your telephone mouthpiece and use its special built-in tone dialler to dial the number for you.

TEXT PROCESSOR

The Portfolio's built-in text processor program

includes word wrap, line and column count, string search, in fact most of the functions you would find in a word processor. It handles printer and word processor control codes and allows easy transfer of files between Portfolio and your desktop PC.

SPREADSHEET

For real calculating power, Portfolio has a Lotus 1-2-3 compatible spreadsheet built-in. It has 127 columns x 225 rows and reads/writes Lotus V1.0 and V2.01 files, so you can transfer data to and from Lotus 1-2-3 on your desktop PC. The Portfolio's 256K ROM includes MS-DOS and PC BIOS compatible systems software.

COMING SOON!

In addition to the excellent software built-in to the Portfolio Free Charge (see right), other software and peripheral products, such as the sophisticated Pocket Finance package and serial/centronics interfaces are available. And it doesn't stop there. Many manufacturers have recognised the potential of the Portfolio and have already started to design new peripherals and software. Products currently under development include: Serial interface with built-in mini modem, Apple Macintosh interface, business, utility and programming software plus a range of adventure and battle strategy games. For further free details on the Portfolio range, fill in the coupon below and return it to Silica Systems now.



MEMORY CARDS

Portfolio can store and retrieve data and programs from its own RAM, or from small credit card size memory cards, that slot into its built-in card drive. The cards are available in three sizes, 32K, 64K and 128K, so you can carry a library of data in your pocket. The card drive also accepts ROM cards, which can contain commercial or custom software.



POWER SUPPLY

Portfolio is powered by three AA batteries which will run for up to six weeks with normal use, or from the mains using an adaptor. All the peripherals take their power from the Portfolio, so no extra batteries or adaptors are required. A 'battery-low' warning and memory back-up ensure that information is not lost when the batteries are changed.



INTERFACES & PERIPHERALS

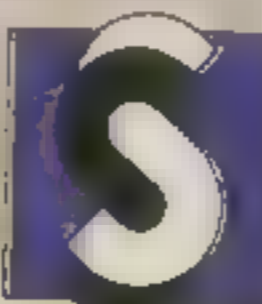
Portfolio can communicate with other computers and supports a growing range of peripherals via a built-in 60 pin bus connector. Peripherals available include serial and parallel interfaces and memory expanders (to 640K). You can also add a card drive to your desktop PC, to enable it to read/write to Portfolio's cards.

SILICA SYSTEMS OFFER YOU

FREE OVERNIGHT COURIER DELIVERY: On all hardware orders shipped in the UK.
TECHNICAL SUPPORT HELPLINE: Team of Atari technical experts at your service.
PRICE MATCH: We normally match competitors on a "Same product - Same price" basis.
ESTABLISHED 11 YEARS: Proven track record in professional computer sales.
£13M TURNOVER (with 60 staff): Solid and reliable with maintained growth.
BUSINESS/EDUCATION/GOVERNMENT: Volume discounts available for large orders.
SHOWROOMS: Demonstration and training facilities at our London & Sidcup branches.
THE FULL STOCK RANGE: All of your Atari PC requirements from one supplier.
FREE CATALOGUES: Will be mailed to you with offers and software/peripheral details.
PAYMENT: By cash, cheque and all major credit cards.
CREDIT PAYMENT TERMS: Silica are licensed credit brokers - details on request.

Before you decide when to buy your new Atari Portfolio, we suggest you think very carefully about WHERE you buy it. Consider what it will be like a few months after buying your Portfolio, when you may require additional peripherals or software, or help and advice with your new purchase. And, will the company you buy from contact you with details of new Portfolio products? At Silica Systems, we ensure that you will have nothing to worry about. Silica Systems is a new division of Silica Shop, the UK's leading Atari specialists. This new division has been established to provide a service to the more serious home user, as well as to business and education purchasers. Silica have been established for over 11 years, and have an annual turnover of £13 million. With our unrivalled experience and expertise, we can now claim to meet our customers requirements with an understanding which is second to none. But don't just take our word for it. Complete and return the coupon now, for our latest Free literature and begin to experience the "Silica Systems Service".

SILICA SYSTEMS



MAIL ORDER: 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX Tel: 081-309 1111
Order Lines Open Mon-Sat 9:00am-6:00pm No Late Night Opening Fax No: 081-308 0609

LONDON SHOP: 52 Tottenham Court Road, London, W1P 0BA Tel: 071-580 4000
Opening Hours Mon-Sat 9:30am-6:00pm Late Night: Thursday until 8pm Fax No: 071-323 4737

SIDCUP SHOP: 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX Tel: 081-302 8811
Opening Hours Mon-Sat 9:00am-5:30pm Late Night: Friday until 7pm Fax No: 081-309 0017

BUSINESS/EDUCATION: 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX Tel: 081-308 0888
Order Lines Open Mon-Fri 9:00am-6:00pm Closed on Saturdays Fax No: 081-308 0608

To: Silica Systems Ltd, Dept NCE-1090 38 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX

PLEASE SEND INFORMATION ON PORTFOLIO

Mr/Ms/Ms: Initials: Surname:
Address:
Postcode:
Tel (Home): Tel (Work):
Company Name:
Which computer(s), if any, do you own?

E&OE. Advertised prices and specifications may change - please return the coupon for the latest information.

The CES show was the biggest leisure software venue on the calendar, but was there anything new? The software publishers certainly had a wealth of games to show to their adoring public, but there wasn't much we hadn't heard about before. Of the games presented, there were only one or two which really looked like being huge hits and we've been talking about those for months. Yes, *Powermonger* looked good and yes, *BAT* was pretty shit-hot too. But screenshots, interviews and reports about *Powermonger* have been intense for weeks, and *BAT* was on display ■ the last two PC shows.

The publishers might argue that games are now of such high quality that we've become blasé about them. They're all good so nothing really leaps out. OK, so maybe programmers might really have pushed the ST, Amiga and PC to their limits in terms of graphics capabilities, but it's good gameplay, speed and originality which makes winners like *Populous*.

Enough complaining and on with the show. Here are a some of the best games around. You should be kicking yourself if you went to the CES and missed them.

OFF TO WAR – AGAIN

You may remember a game released by Electronic Arts a few months ago called *Imperium*. It was a complex strategy/space-trading game with an amazing attention to detail, which meant the slightest movement in one area of the game could have enormous consequences in another. Now designer, Matthew Stibbe, strikes again with a game for Domark called *Vietnam* or 'Nam for short.

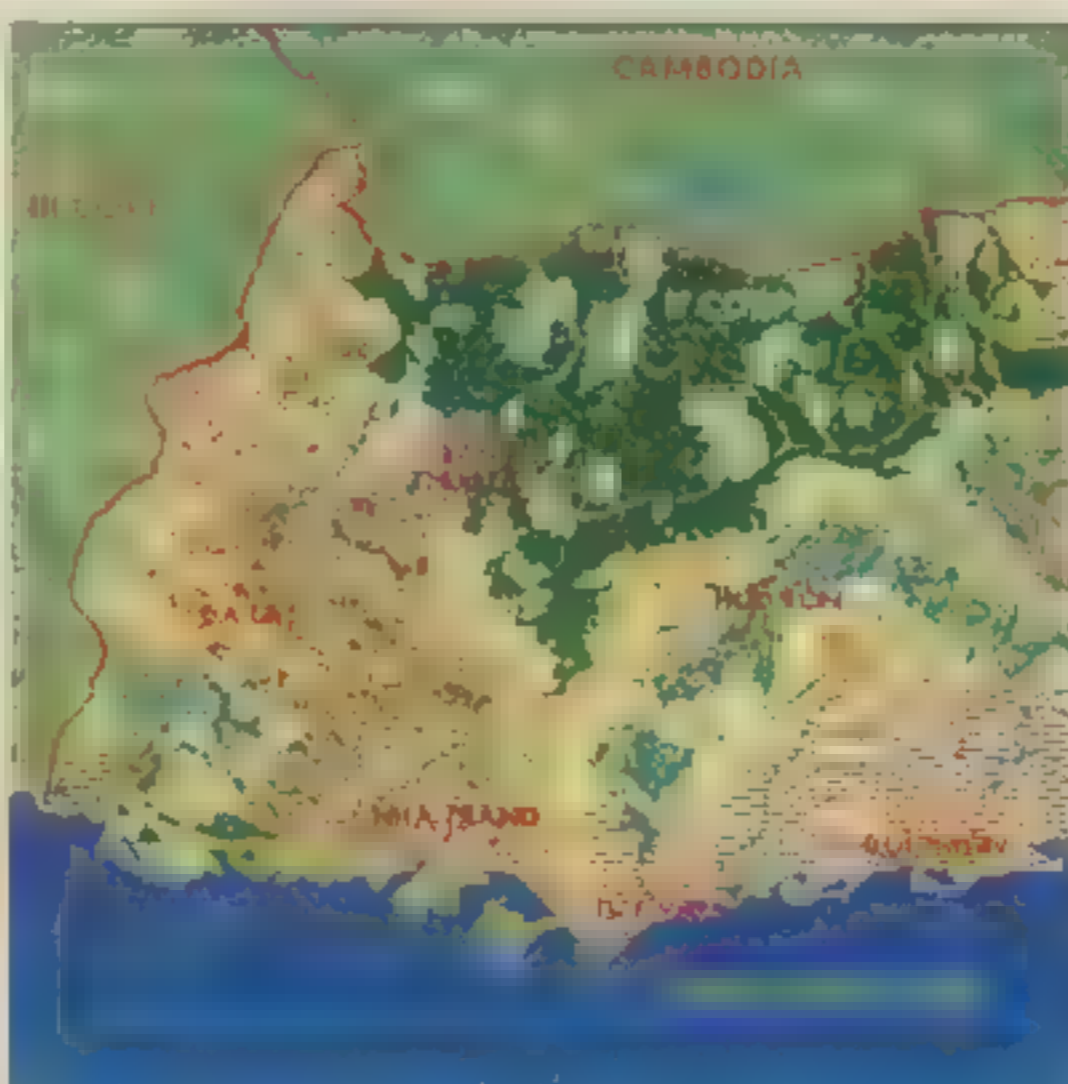
This simulation of the Vietnam war is more than just another wargame. There are two aspects to the game – political and military. You play the role of the American president, and through military power and economic support you control the extent of America's commitment to Saigon.

Mark Higham's

GAMES WEEK



With the CES show over it's time to choose the pick of the bunch. This week Express's games pro Mark Higham also looks at a polished new shoot-'em-up and takes time out to give you help on *MidWinter*.



• *Imperium* game designer Matthew Stibbe comes up with a follow-up. 'Nam is a wargame simulation of the Vietnam war from 1965-1975, in which you play the American President.

Matthew believes he has spotted the problems with *Imperium* and rectified them in 'Nam. For example, whereas *Imperium* had very little graphical content but enormous detail, 'Nam includes a redesigned user-interface and graphics which enable you to interact with the game far easier.

A NEW POPULOUS?

Outlands is another promising title, this time out of the Millennium stable. It won't be ready until spring next year but it's likely to stir up considerable interest nevertheless.

The playing screen bears a close resemblance to *Populous* but that's where any similarity ends. You play the role of an American Indian spirit in *Outlands* and the idea ■ to influence the characters in the game. For example, you could put the spirit into a cowboy and influence him ■ rob a bank. With the Indian homeland under threat from greedy landowners you need to resort to such drastic measures to try and protect it.

PLAYING TIPS: getting through the depths of *MidWinter*

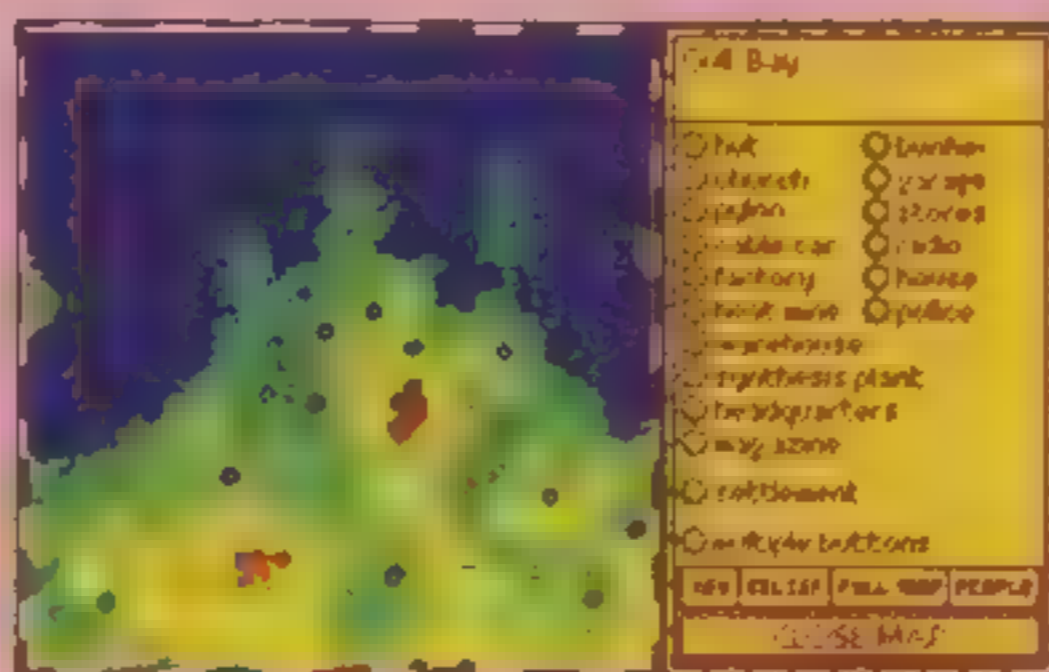
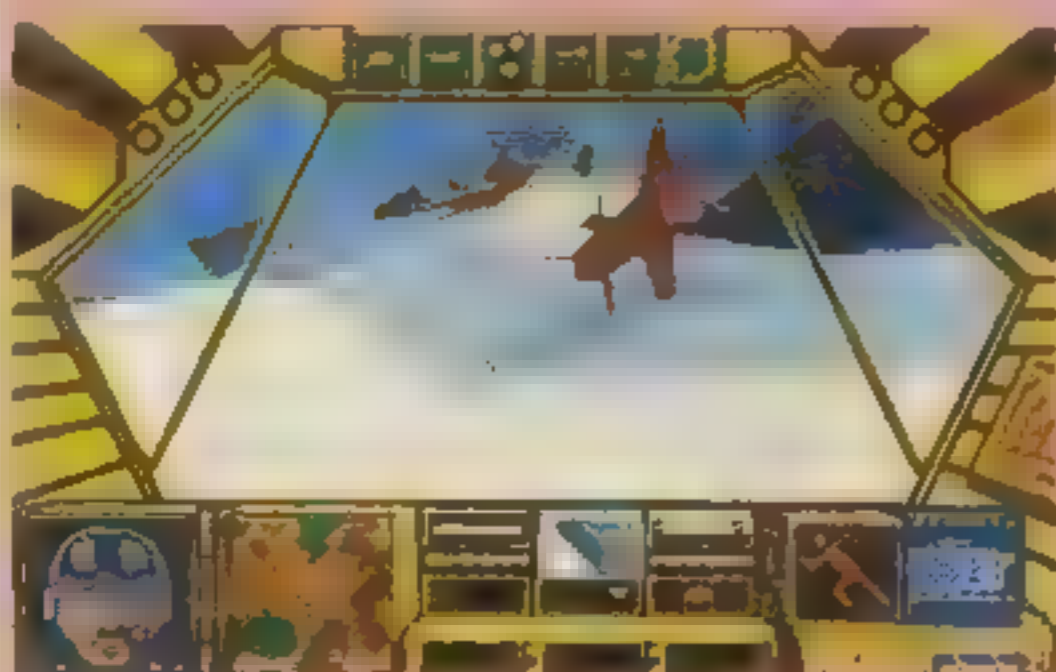
MIDWINTER • Rainbird

This week's essential playing tips come from Amir Sharif in London.

▲ If there are enemy vehicles after you, try and evade them by going at 80mph or more in your snow vehicle and dodging in and out of hills and valleys. If they fire a missile at you, which is almost certain, then employ the same tactics, ie. swing from side to side and head downhill into a ravine in an attempt to destroy the missile. If you spot the enemy vehicle then fire a missile at it.

Make sure you lock-on at long range because short-range refuses to lock. Otherwise use a drone on them at close range to kill them with ease. If you're lucky the enemy vehicle you destroy could contain an enemy captain who is shown to you, along with statistics of his fighting unit including the number of men who've deserted and any abandoned enemy vehicles.

Two of the captains are Hossbach and Nielsson.



Hossbach can be found roaming the lowlands of Fox Plateau. Nielsson is an ugly piece of work who keeps a patrol guarding the synth factories round the Caheta Hills.

▲ If you're on your skis and there's a missile on your tail the best way to avoid it is to ski from side to side, leaping behind mountains to delay it. If this doesn't work start tossing grenades at the missile as it flies in front of you. These can sometimes act as a decoy.

▲ Sniping at things isn't too hot sometimes since this area of the game tends to be a little jerky. When firing at moving obstacles always keep the sights just a tiny bit above or below your target and keep firing.

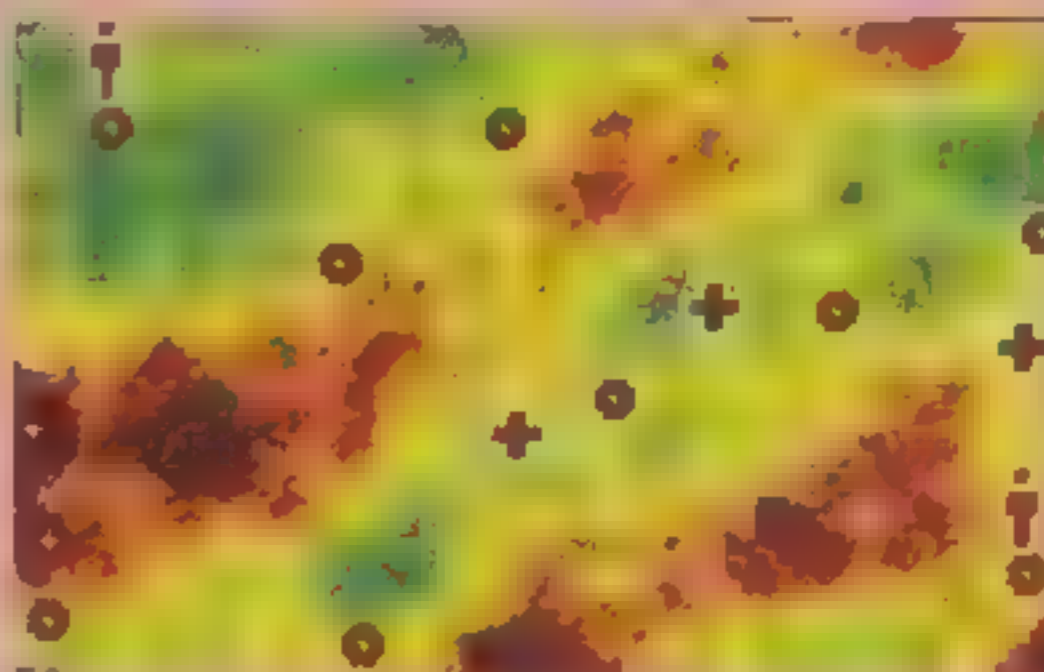
▲ To see some excellent mountain ranges head for Terceira and Blue Mountains and hang-glide round the area. You get the best thermals off the sides of mountain terrains and generally you lose height and speed when

you fly over level ground.

The trick to successful hang-gliding is to take off at 21 or 25mph rather than 20 and pull back on the joystick or mouse to attain a good height – 150 or more from the mountains. Now level out, drop a little to pick up speed then go up again to regain height. Keep a good watch on your height and speed as well as the terrain. In this way, if you start to lose height at least you are going to land without breaking your neck.

▲ For those of you who just want to complete the game in as fast a time as possible simply send Stark out on a solo mission. Direct him off to Shining Hollow using the most direct route you can find and when you reach Shining Hollow, bomb it mercilessly. Though this is a valid route through the game it involves none of the ordinary strategies required in an ordinary game.

Send your tips to Mark Higham's Gamesweek, New Computer Express, 30 Monmouth Street, Bath BA1 2BW



The name and scenario of the game might change in the coming months. I hope they don't lose the Indian idea because it sounds enticing, but whatever happens, keep an eye open for this one.

AN ARCADE CHRISTMAS

If you spend the occasional hour (and five pound note) down the arcades, you can't fail to have noticed *Dragon Breed*. Activision have acquired the licence to this coin-op monster and are busily writing the home micro conversion to meet Christmas.

For those of you who aren't arcade fans, *Dragon Breed* is a horizontally-scrolling shoot-'em-up boasting six colourful levels. The hero of the game sits astride a Chinese dragon made up of 13 segments. During the action you can move around so that the dragon's tail curls in front of you, protecting you from the firepower of some mammoth aliens. When necessary, the hero can climb off the dragon and walk along the ground with his giant laser cannon.

Early demos suggest the programmers have caught much of the excitement of the game's arcade parent. ST and Amiga conversions are being coded as well as conversions for the popular 8-bit micros.

FAME AND GLORY

The Bitmap Brothers, the team responsible for such classics as *Xenon II* and *Cadaver*, have ceased working for Mirrorsoft and have set up their own software publishing company, they announced at the show. The company is the result of a partnership between The Bitmaps and Rhythm King Records.

The philosophy behind Renegade, according to Bitmap Brother Eric Matthews, is to give the fame back to the programming team. "When you buy a record", said Eric, "you don't expect to see the name of the record company splashed all over it. It's the artist who gets all the glory." This was the reason they decided the Renegade logo would appear in tiny letters on packag-

THE GALLUP 16-BIT TOP TEN			
For the week ending 15th September			
Last Week	Game name	Publisher	Format
1	CORPORATION	Core Design	Ag
2	KICK OFF 2	Anco	ST Ag
3	SHADOW WARRIORS	Ocean	ST Ag
4	ITALIA 1990	Codemasters	ST Ag
5	WINGS	MirrorSoft	Ag
6	MIDNIGHT RESISTANCE	Ocean	ST Ag
7	SHADOW OF THE BEAST 2	Psygnosis	Ag
8	F19 STEALTH FIGHTER	MicroProse	ST PC
9	TARGHAN	Action 16	ST Ag PC
10	LOST PATROL	Ocean	Ag

ST - Atari ST Ag - Commodore Amiga PC - IBM PC
 Chart compiled by Gallup & European Leisure Software Publishers Association

ing with the programmers' name dominating. This is no token effort to pacify whingeing programmers though. The company will operate on a profit-sharing scheme whereby 10 per cent of all profits are shared among the people responsible for a particular game.

The Bitmaps see one of Renegade's strengths as the fact that it's related to a record company. They believe this gives them the perfect opportunity to exploit the potential of multimedia.

The first big title to fall under the new label will be *Gods*, an eight-way scrolling arcade adventure game due out towards the beginning of next year. This will be followed a few months later with *Magic Pockets*, a cutesy game, with a hero called The Bitmap Kid, with five levels picking up water pistols and boxing gloves.



• Gods will be the first of the Bitmap's games to be released on Renegade - but it's not expected until next year.

WINGS OF DEATH

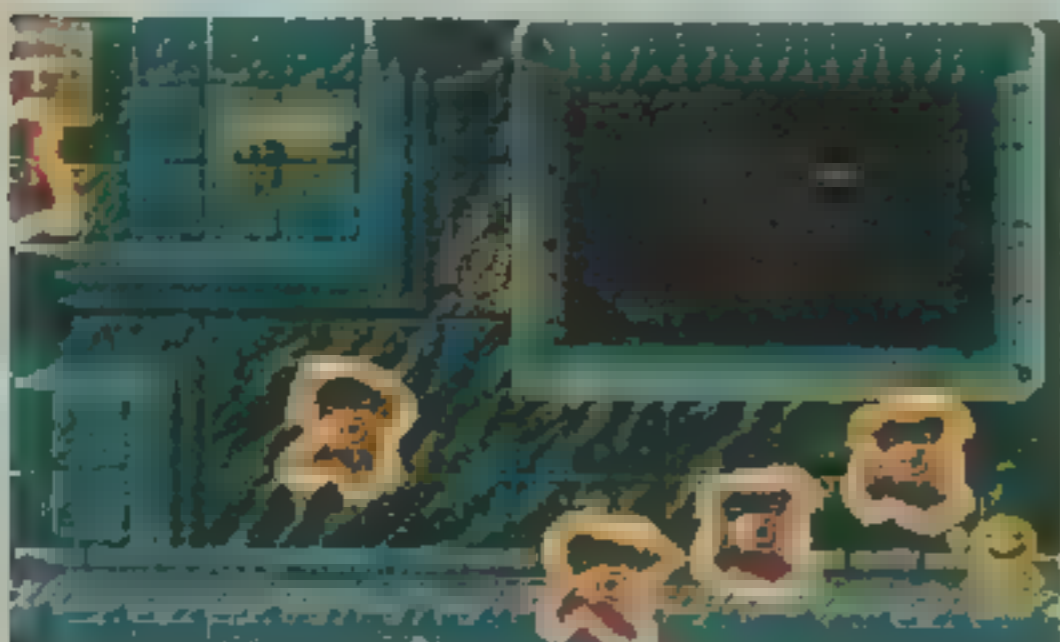
THALION/ACTIVE • £24.99

We all thought the vertical scrolling shoot-'em-up had died after *Xenon II*. You just can't go on regurgitating a hackneyed game style over and over again. Well, Thalion are having a go with *Wings of Death* and the signs are that it's remarkably addictive.

Wings of Death is a vertically scrolling shoot-'em-up in the traditional mould. The objective is to race through a series of levels mindlessly blasting everything you meet. Pick up a few good bonus pods along the way, watch out for the lethal pods and wait for the end-of-level guardian.

Wings of Death has all these points and no more. In this case you start the game with a tiny mosquito-type creature and the bonus pods build up your size and increase your firepower. Watch out for skeleton pods, which kill you, and try to collect any 'new life' pods you spot en route.

The end-of-level aliens have been wonderfully



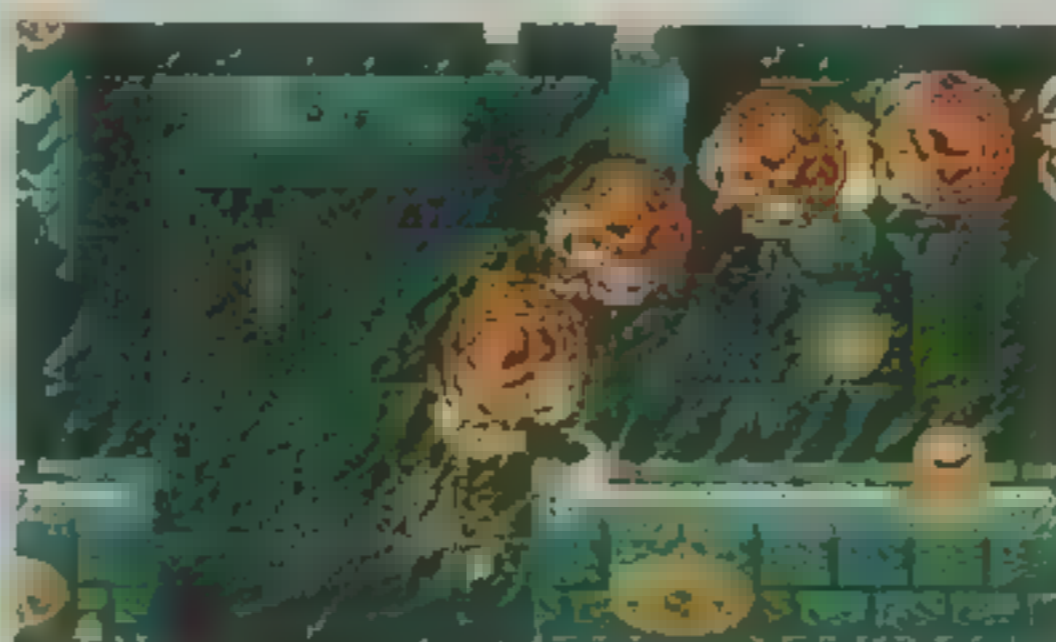
• It's the attack of the killer amoebas in *Wings of Death*, a 'mindless blast'.

animated to be clear, precise and detailed. All the backdrops are very bright, following an Egyptian theme, which offers enormous scope for many golden, crimson and black enemies.

Sampled speech informs you whenever you collect any of the many bonus pods and other sampled music is used as an intro theme and during the action on ST and Amiga formats.

It says something good about a shoot-'em-up when you spend the entire game comparing it to *Xenon II*. Play *Wings of Death* for a few moments and you find that's exactly what you do. However, there's no disputing that, apart from some excellent visuals, *Wings of Death* doesn't present anything new.

If you're still desperately trying to work your way through level three of *Xenon II* then there's no point in buying *Wings of Death*, but if you're missing intense arcade-style action then this fills that gap.



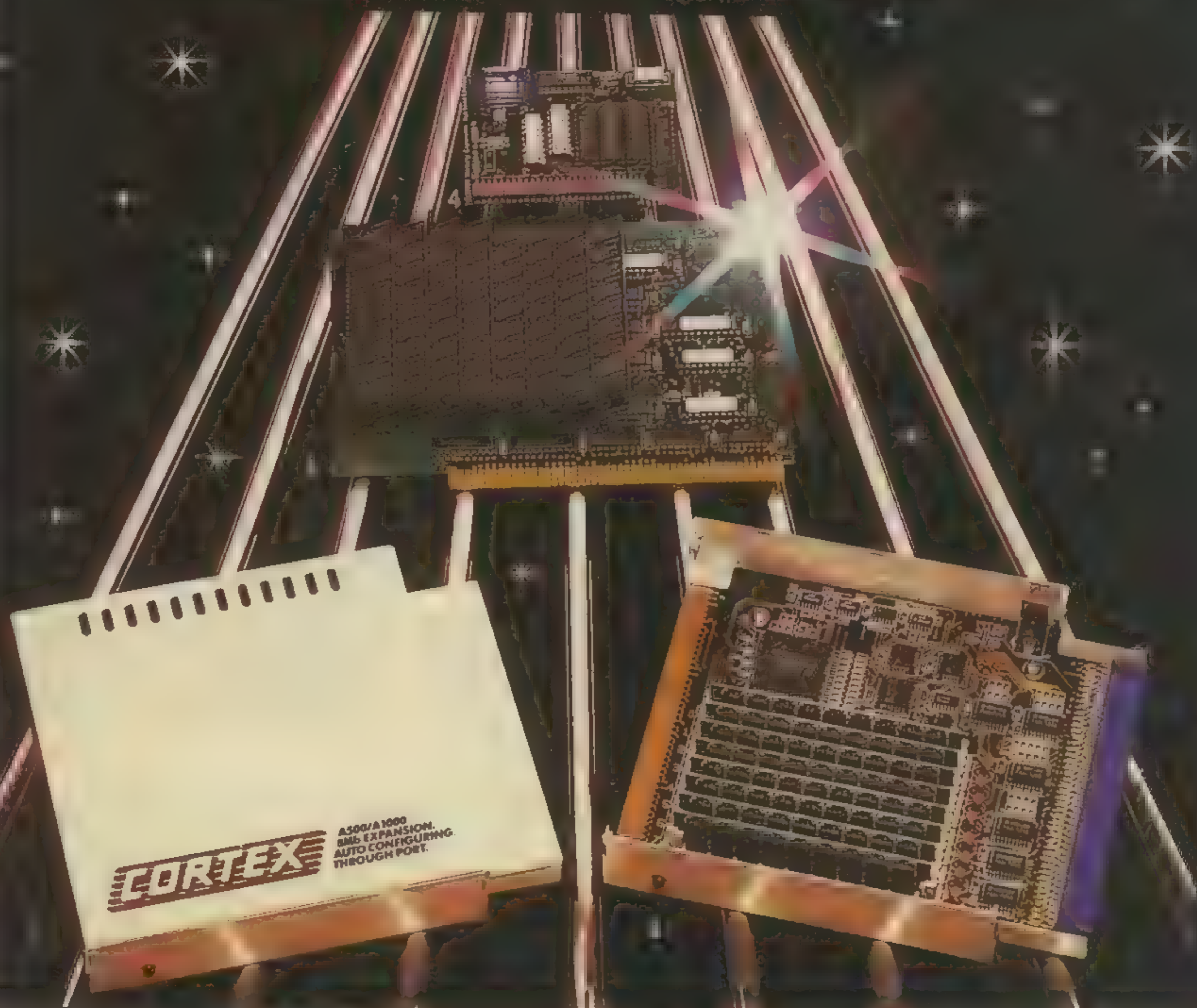
• You haven't just got end-of-level guardians to deal with - there are gruesome monsters everywhere you fly.

THIS WEEK'S GAME REVIEW



• Get that trigger finger working again in *Wings of Death*. Race through vertically-scrolling levels blasting everything that moves and collecting the bonus pods.

**A LONG TIME AGO IN A GALAXY FAR FAR AWAY, IT WAS DECIDED
THAT THE WAY TO EXPAND AN AMIGA A500 BEYOND ONE MEGABYTE WAS TO
OPEN THE HOST MACHINE AND FIX THE EXPANSION MEMORY INSIDE, THUS
INVALIDATING THE WARRANTY, OVERLOADING THE POWER SUPPLY AND OFTEN
CAUSING DISASTEROUS HARDWARE INCOMPATIBILITY PROBLEMS
THEN CAME**



..... the **CORTEX** rebellion!

1. A500/A1000 8Mb Expansion (2, 4, or 8Mb). Fully implemented autoconfigure. Fully operational through port for compatibility with other autoconfiguring hardware (e.g. CBM A590). Complete with its own power supply (U.K., U.S. or Euro). **£299**
(2Mb FITTED).

2. As above, but with the cover removed.

3. A2000/A2500/B2000 8Mb Expansion (2, 4, 6 or 8Mb). Fully implemented autoconfigure. Uses 1M x 8 bit or 1M x 9 bit SIMM's. **£279**
(2Mb FITTED).

4. A500 1/2 Mb Expansion. The essential A500 upgrade. A high quality A501 equivalent using low-power 1Mbit DRAM's. The unit has an "enable/disable" switch and is available with or without NiCad battery-backed clock/calendar module. **£37**

5. External 3.5" Floppy Drive (not pictured). High-quality silent mechanism. Extra drive port and "enable/disable" switch. **£59**

Hard disks. Systems available for all Amiga variants call for details and pricing.

CHIP UPGRADES

"Fatter Agnus" chip (8372A) for A500/A2000. Enables up to 1Mb of Chip RAM. Fitting requires some skill and will invalidate your warranty. **£60**

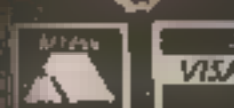
1.3 Kickstart ROM. Upgrade for A500/A2000 **£33**

A590 Upgrade chips: 1/2Mb **£34**, 1Mb **£62**, 2Mb **£120**

SIMM's. All types available. Call for pricing.
A3000 4 Mbit Static Column Dram call for pricing.

All prices include VAT and postage & packaging. Prices may be subject to change without notice. All products carry a 12 month guarantee. Dealer enquiries are welcome.

CORTEX products are marketed in the U.K. by
Memory Expansion Systems Ltd, Britannia Buildings,
46 Fenwick Street, Liverpool L2 7NB. Tel. (051) 236 0480.
Fax: (051) 227 2482. Make cheques payable to M.E.S. Ltd



WE ARE 100!

A look back at our first century starts on page 39



SHOPPING EXPRESS

THE VALUE-PACKED GUIDE TO YOUR MACHINE AND MORE

CONTENTS

AMIGA	22
News of Photon Paint	
ARCHIMEDES	23
More games on the way	
CPC	24
The console: is it the future?	
C64	26
Games action	
PC	27
Excitement at the shows	
Spectrum	28
Here there be pokes	
ST	29
An alternative Desktop	
Whole Wired World	36
Steve Gold at large in a new column	
Centrefold	39
Special 100th Birthday edition	
Express On-line	60
The weekly bulletin board and user group guide	
The Console Zone	65
Hints, news and reviews	
The PD Column	66
The best in free software	

FREE! Reader Ads Order Form

PLEASE TICK THE CATEGORY YOU WANT YOUR AD TO GO IN:

- | | | | |
|--|--|--|-----------------------------------|
| <input type="checkbox"/> HELP OFFERED | <input type="checkbox"/> GOODS WANTED | <input type="checkbox"/> BUGS DISCOVERED | <input type="checkbox"/> EVENTS |
| <input type="checkbox"/> SERVICES | <input type="checkbox"/> VIRUS WARNING | <input type="checkbox"/> FOR SALE | <input type="checkbox"/> PERSONAL |
| <input type="checkbox"/> ANNOUNCEMENTS | <input type="checkbox"/> MINI-TIPS | | |

NAME _____ TEL: _____

ADDRESS _____

WRITE YOUR FREE AD HERE

Send your reader ads to:
SHOPPING EXPRESS READER ADS,
30 MONMOUTH STREET, BATH BA1 2BW

Terms and conditions

- Sorry, NO trade ads. All reader ads must be from private individuals
- We cannot vouch for the quality of goods and/or services offered in this section. All ads are accepted in good faith.
- We reserve the right to amend or refuse reader ads at our discretion
- No pirated software may be sold through these columns. Any reader being offered non-originals should contact us
- We cannot guarantee that reader ads will appear in particular issues of Express
- The following declaration should be signed:

My advertisement conforms to the terms above and is legal, decent, honest and truthful

Signed _____

BYTEBACK

NUMBER ONE FOR AMIGA SOFTWARE

GAMES ONLY!

Anarchy.....	15.99
Atomic Robokid.....	17.99
Back to the Future 2.....	16.99
Battle Master.....	16.99
Battle of Britain.....	19.99
BSS Jane Seymour.....	15.99

SOUND EXPRESS.....29.99
Transform your computer into a
STEREO Sound Sampling Studio!
Ask for full specifications...

Chess Champion 2175.....	19.99
Codename Iceman.....	27.99
Damocles.....	15.99
Days of Thunder.....	15.99
Distant Armies.....	17.99
Dragons Breath.....	17.99

512k MEMORY EXPANSION44.90
FREE: 4 1MB demo disks!

Drakkhen.....	17.99
Dungeon Master.....	15.99
Falcon - Mission 2.....	15.99
Gremlins 2.....	16.99
Fire and Brimstone.....	15.99
Flood.....	17.99

AMOS - Games Creator.....34.99
FREE: EXTRAS disk!

F-29 Retaliator.....	17.99
Imperium.....	17.99
Cadaver.....	16.99
Kick Off 2.....	15.99
Kings Quest 4.....	24.99
Manhunter San Francisco.....	21.99

X COPY Professional.....29.99

Midnight Resistance.....	17.99
Midwinter.....	19.99
Mr. Do Run Run.....	13.99
New York Warriors.....	15.99
Operation Stealth.....	18.99
Player Manager.....	12.99

CORPORATION.....15.99

Pool of Radiance.....	19.99
Red Storm Rising.....	17.99
Resolution 101.....	16.99
Rick Dangerous 2.....	16.99
Rorkes Drift.....	15.99
Second Front (SSI).....	19.99

**FREE - ONE PUBLIC DOMAIN DISK WITH
EVERY TWO GAMES ORDERED!**
Pick from PD list opposite!

Shadow of the Beast 2.....	24.99
Shadow Warriors.....	18.99
Sim City.....	17.99
Space Quest III.....	24.99
Teenage Mutant Turtles.....	22.99
Treasure Trap.....	15.99

Pagesetter 2.....49.99
Professional page.....159.99

U.M.S. II.....	19.99
Universe 3.....	17.99
Venus Flytrap.....	15.99
Warhead.....	17.99
Wings.....	18.99

PUBLIC DOMAIN

1 disk = £1.99, 5 disks = £8.99
10 disks + file box = £16.99

This is just a selection from our large
Public Domain Library. Ask for our
NEW OCTOBER catalogue

AU.01 Jazzbench; Superb Workbench
replacement; fully multitasking!
AU.03 QL Emulator; plus 2 disks full of
programs. (3 Disks : £5.99)

AU.12 Music Editor; Soundtracker style
music creator! User friendly!

AU.13 Visicalc; Spreadsheet...

AU.16 Spacewriter; DIY Demo creator

AU.17 Sound Monitor; (+ Instruments)
demo scores in this high quality sound
package! (2 Disks : £3.99)

AG.01 Star Trek 1; Version of the ST
adventure game. (3 Disks : £5.99)

AG.02 Games; Pacman, Othello, Hanoi,
Gravity wars, Jackland, Empire, etc

AG.03 Agatronic Star Trek; Space game,
see May Amiga Format! (2 Disks : £3.99)

AG.04 Monopoly; classic board game!

AG.05 Pacman 87; Multi level game.

AG.06 Games; Cosmoids, Backgammon,
Amoeba, Stone Age, Chain Reaction...

AG.10 Space Invaders; + Lunar Lander

AG.13 Adventure game solutions;
Over 100 including; Dungeon Master,
Sierra, Infocom, Rainbird, Ultima, Bards
Tale, Future Wars... (2 disks : £3.99)

AG.14 Flaschebier; Professional quality
Boulderdash style game!

AG.15 Paranoid; Arkanoid version.

AG.16 Castle of Doom; Adventure game.

AG.22 Return to earth; Professional
quality Space trading game!

AM.27 ACID; House Megamix Trip Disk.
Mind mangling graphics and sound!

APACK.01 Soundtracker Special;
Super PD Music program. 3 versions + 4
well packed instrument disks!

AG.23 Blizzard; Arcade Shoot-em-up

AW.02 Workbench Plus; TVText demo,
Fractals, Virus X, Clip It, DMouse

AW.03 Icons; 100's including; the
amusing Naughty Icons, Ram Icons, Music
Icons...plus Icon utilities

AD.01 Walker demo 1; animation of Star
Wars Walker (need 1MB)

AD.04 Probe Sequence; Simulation of
video pictures from an interstellar probe
landing on an alien planet!

AD.21 Busy Bee; Amazing 3D Ray
Traced animation! + Tree Frog!

AD.23 Ship & Sphere; Super Smooth
Ray Traced animation!

AD.25 The Run; Superb 3D Car chase.

AD.29 Predators Megademo; stunning
sound & animation! (2 Disks : £3.99)

AD.45 Star Trek Dry Dock; Superb Ray
Traced animation by Tobias Richter.

AC.02 Pagesetter Art; 100's of profes-
sional quality clip art pics.

AC.04 IFF Fonts; 30 screens of high
quality fonts plus surfaces.

AS.01 Boris Vallejo 1; Superb HAM pic-
tures from top fantasy artist!

PATCH WORKS

Sound Quest Inc, the Ontario-based
company which produces one of the
most comprehensive ranges of synth-
patch editors for the Amiga, has
released a new product in the shape of
MIDI Quest, a universal editor/librarian.
The program offers configurable MIDI
drivers, integrated graphic editing and
multi-instrument filing capabilities. **MIDI
Quest** lets you manipulate synth-patch
files created by **Sound Quest** products
on both the Amiga and other musical
micros. These can be edited within **MIDI
Quest** create new banks of sounds
by cutting, pasting, mixing and blending
patches from other banks.

MCM used to handle the
distribution of **Sound Quest** products,
but has since ceased dealings with the
company. As a result, no one actually
seems to know who is handling said
products. If you're one such company,
then let me know and I'll pass on the
good news. Otherwise, you can phone
Sound Quest directly on 0101 416 256
0466.

PHOTON THREE

Photon Paint 2 is already generally
regarded as the number-one paint pack-
age for HAM painting on the Amiga, but
MicroIllusions has announced that it
plans to release a major upgrade to its
paint system very soon. Not surpris-
ingly, the new release is to be called
Photon Paint 3.

Unfortunately, at time of going to
press, no specific details were avail-
able, but I'll bring you more as soon as
the fax arrives. Expect to see the
definitive review in *Express* soon, and
look out for a new version of this old
favourite.

EMULATION SENSATION

No sooner has **Medusa** released its
£180 hardware-based Atari ST emulator
for the Amiga, than another company
has gone one better by producing an
emulator that is completely software-
based. **Chameleon**, as it is called,
emulates the Atari completely through
software, and it is claimed that the
emulator operates just as well as the
Medusa card.

This is hardly surprising when you
consider that **Medusa** admits that the
hardware itself handles nothing more
than I/O. Even though both the **Medusa**
card and **Chameleon** are very much
software-based, both manage to
emulate an Atari nearly 90 per cent
its original speed. Packages such as
GFA BASIC, **Calamus** and **Pro-24** are
claimed to work without a hitch.

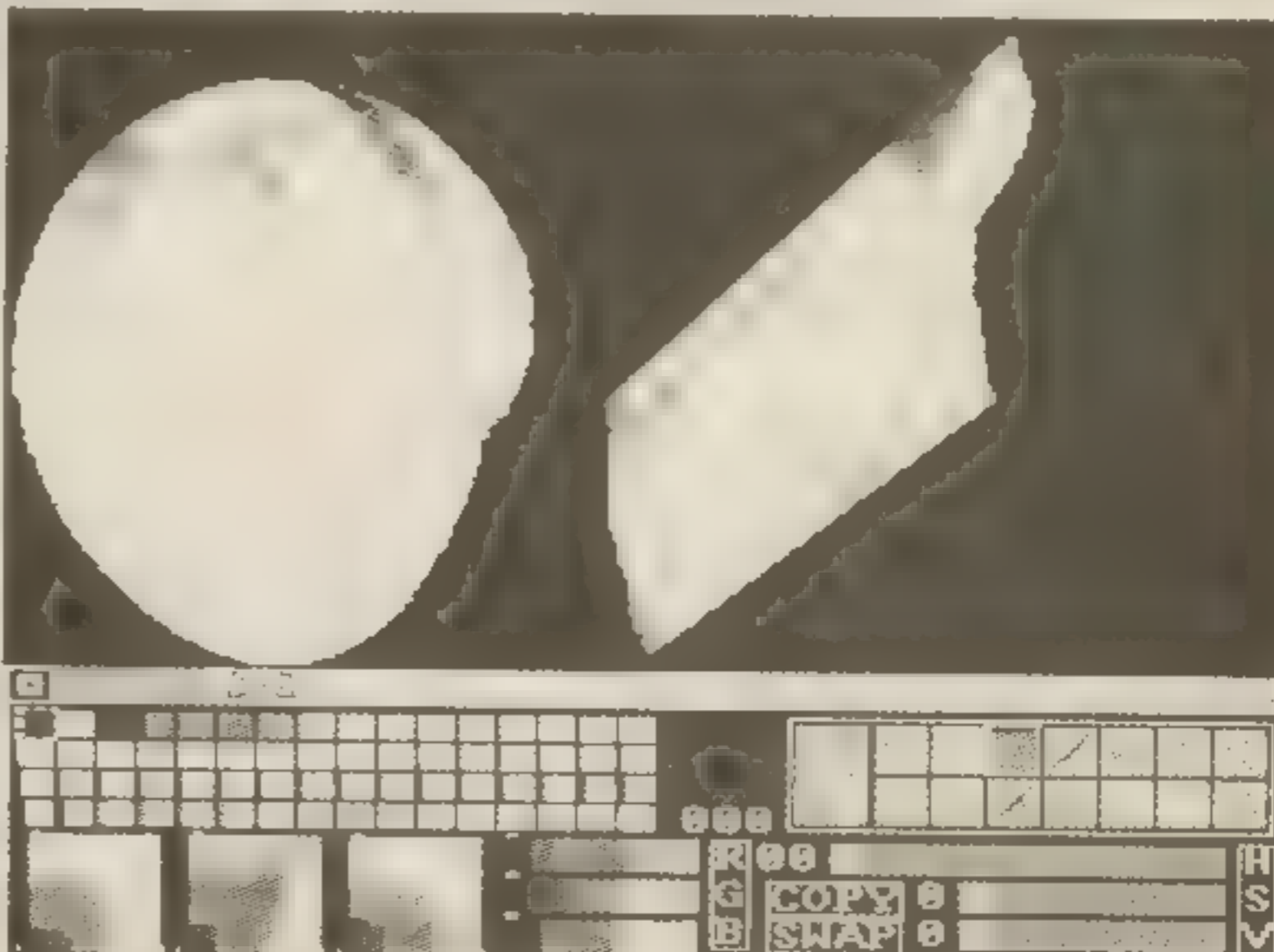
The good news about **Chameleon**
is the price. Although not finalised, it is
believed that **Chameleon** could sell for
as little as £30 - which is about £150
cheaper than the **Medusa** card!

MUSIC-X 1.1 ARRIVES

As you will be no doubt be aware,
MicroIllusions has finally got around to
releasing version 1.1 of **Music-X** (well,
you should know about it - I devoted a
large chunk of my column to it only a
couple of weeks back!). Thanks to those
very nice people at **The Software
Business** (which is the UK distributor for
MicroIllusions' stuff), I've been happily
playing with it for a couple of weeks
now. Here's what I thought of it.

Probably the most noticeable
enhancement is the inclusion of an all-
new event sculpting option within the
bar editor. Just like **Master Tracks Pro**
and **Pro-24**, this allows you to change
continuous controllers by dragging the
mouse across the desktop to physically
'draw' the controller. Even after just a
few minutes use, you'll wonder how you
ever managed without it. Also new is
the **Velocity Flattener** module which
allows you to set the velocities of a
group of notes to a user-specified size.
Just by setting the velocity for the first
selected note, and the velocity for the
last note, **Music-X** will fill in the gaps
between, thereby allowing you to create
volume 'ramping' effects.

If you're lucky enough to own a
2000 fitted with a multi-serial card, then
you'll be able to access a maximum of
128 different MIDI channels. These are
split up into groups of 16 separate
channels, each of which is connected to
the Amiga through its own MIDI
interface (hence the need for a multi-
serial card). I unfortunately don't
possess such an item (anyone want to



• Photon Paint: upgrade due soon.

VISA

TELEPHONE: 0636 79097

ACCESS

BYTEBACK

DEPT NCE, 6 MUMBY CLOSE, NEWARK, NOTTS NG24 1JE

loan me one?), so I can't tell you how well it performs. All I can say is that I'm impressed. *Music-X* was brilliant, but *MicroIllusions* has improved it still further. *Music-X* is quite simply the most complete MIDI sequencing system available for the Amiga. As Lynette Numan would say, 'The best just got better'.

GOLD DISK GOODY

Integration was the big thing only a couple of years back, but now software manufacturers seem to have gone back to their old bad habits of producing incompatible productivity software.

Gold Disk, though, knows a thing or two about what the user really wants. Not content with producing the market-leading spreadsheet and DTP systems for the Amiga (*Advantage!* and *ProPage* respectively), Gold Disk has released a new integrated business package called *Gold Disk Office*. The package brings together a powerful word processor, database management system, desktop publishing, spreadsheet and business graphics system together within one package. It's still unclear whether these are entirely new packages, or just rebadged products, but either way, the *Gold Disk Office* package sounds like good news for anyone wanting to pull together a decent selection of business applications software.

PROGRAM WITH VISION

Commodore has finally started selling its *Amiga Vision* multi-media authoring system to non-A3000 owning Amiga users. The system, which allows

complex multimedia applications consisting of video, graphics, sound, animation and text to be pulled together, is being offered to American users for \$150. No details yet about any UK release dates, but rest assured that I'll be bringing you a full review as soon as I get my sweaty mitts on a copy. Until then, contact Commodore on 0627 770088 for more.

FROM ACROSS THE POND

Consultron, the Miami-based company responsible for that incredibly useful file-transfer software *CrossDOS*, has released a new version that combats many of the problems found within the first release.

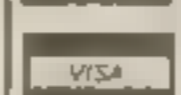
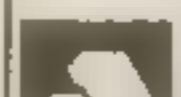
CrossDOS version 4 (don't ask me what happened to all the other releases) now works very nicely thank you with the new *Workbench 2.0*. Not only that, but Consultron has doubled the speed of all reading, writing and formatting of MS-DOS disks.

Inner Circle Software has finally released its long-awaited (and extensively pirated!) *Amiga BBS* software, *Paragon*. The software allows up to ten users to log-on simultaneously, therefore allowing users to indulge in conferencing and multi-user games. *Paragon* allows you to create up to 128 message and 40 file areas. Also included is a download utility which allows users to compress their uploads into either ARC, LZH or ZOO formats. More info can be extracted from Inner Circle on 010 214 241 6060.

Jason Holborn



dataplex



DATEPLEX COMPUTERS LTD.

129 Bath Road,
Slough,
Berkshire,
SL1 3UW

Tel: 0753 35557

19 High Street
Swindon,
Wiltshire

Tel: 0793 488448

SHOWROOM
open:
Mon - Fri
9.30 - 5.30
Saturday
9.30 - 4.30
MAILORDER
Consumables
£1.50
Hardware
£8.00
Prices
excluding VAT

AMIGA A500 HARDWARE

Amiga A500 Batman Pack
+ free box of disks£317
Amiga A500 Flight of Fantasy +
box of disks£317
Amiga A500 Screen Gems
Packs + free disks£317

SPECIAL OFFER

Amiga A500 1Mb Pack - Choose
any Amiga A500 from above and
we will give you 512K RAM +
clock, mouse mat at only£355
Amiga Class of 90's£439

ATARI COMPUTERS

Atari 520SM discovery pack
includes 4 games£240
Atari 520 STE Power Pack
includes 20 games with
joystick£310
Atari 520 STE Turbo Pack
includes basic STOS and 7
games£310
Atari 1040 STE extra pack
includes ST Words, ST Calc, ST
Basic, ST Graphics, Hyper-
Paint, STOS, 1st Basic, Print
Game£399

AMIGA/ATARI DRIVES

1 Meg 3.5" internal£55
1 Meg 3.5" external£65
1 Meg 5.25" external£99

ACCESSORIES

512K Ram + clock£45
Joystick£10
10 Blank disks in library box£6
Mouse Mat£3
TV Modulator£15
Naksha Mouse£32

MONITORS

Philips CM8833 - Colour Monitor
+ leads only£189

PRINTERS

Star LC10 Mono£135
Star LC10 II£159
Star LC10 Colour£168
Star LC2410 + lead£199
Panasonic KXP1124+ lead£199
Panasonic KXP1624£329
Citizen Swift 24 + Colour
Upgrade£265
Citizen 120D +£119
Citizen Swift 9 + Colour
Upgrade£185

RIBBONS

PLEASE CALL FOR PRICES

Archimedes

THE SHOW MUST GO ON

After you'd ogled the A540, marvelled at the ARM 3 upgrades and positively gawped at the VidC enhancers, you might have been led to believe there was no life left in your standard Arc! Well don't worry, there was plenty of software available (and even more as yet unavailable) to keep you entertained for many months to come.

The two most impressive things I saw were *Tracker* from the Serial Port and *Elite* running on the Arc; more of this later. *Tracker* is a fully blown sound-track creator and player. Many of you will have a copy of the sound tracker module that has been in an almost constant state of development over the last year. Apart from the obvious cosmetic improvement over the later PD versions of sound tracker, *Tracker* is capable of dealing with up to 31 instruments on eight tracks (rather than the four which lesser machines are restricted to). The complete package costs five pence less than 50 quid and comes on five disks, including two disks full of instruments and one of example tracker modules. Very early versions suffer from a few silly bugs and rather a poor manual, but both of these will be tidied up for the official release.

Also on the Serial Port stand was the latest version (number seven) of *ArcTerm* for '80, and demo versions of *BlowPipe* and *WorldScape* for 20

pounds apiece. Both the latter were first mentioned in *Express* 97. *ArcTerm* 7 now comes complete with a scripting language for writing your own terminal emulators. *Blowpipe* is "99 per cent finished," and features all the bits you'd expect to find in a shoot-'em-up. At a first glance it looks a bit quicker and smoother than *Nevryon* and may well have the edge. Watch out for a full review soon! *WorldScape* is a world simulator, and you can't say fairer than that, can you? As far as I could make out, you have to control pollution levels and the like and watch out for the ozone layer!

Serial Port is on 0243 531194.

ARCHIMEDES ELITE?

So what was that about *Elite* on the Arc, I hear you ask. Well, if you wandered over to the Arxe Systems stand you may have seen the rather familiar sight of a spinning wire-frame space craft, that is if you could make it out from the blur on the screen! You see, someone seems to have written a BBC emulator that runs up three times faster than the original BBC!

Arxe is currently negotiating with Acorn over the rights to *Elite*, as well as a number of other companies, with a view to putting together a package of super-fast emulated BBC games. The games need to be tweaked to a certain extent, mainly in the line-

HIGH QUALITY DISKETTES

PIN NUMBERED QUALITY DISKETTES 100% CERTIFIED AND GUARANTEED 100% ERROR FREE. MANUFACTURED AND QUALITY ASSURED BY AN INTERNATIONAL BRAND NAME

3 1/2" DS DD 135TPI

37p

COLOURED DISKS 40p

5 1/4" DS DD 96 TPI

21p

3 1/2" DSDD 2 MEG 89p

42p

PLASTIC LIBRARY CASES

EA 89p

STORAGE BOXES

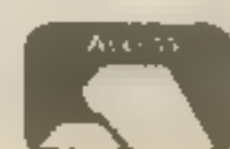
3 1/2 40 cap ...£4.20 3 1/2 80 cap ...£4.60

5 1/4 50 cap ...£4.40 5 1/4 100 cap ...£4.90

EURODATA
12A QUAKERS YARD
ADAM AND EVE ST
MARKET
HARBOROUGH
LE16 7LT
TEL: 0858 433992
FAX: 0858 432549

GO ON
BE
TEMPTED

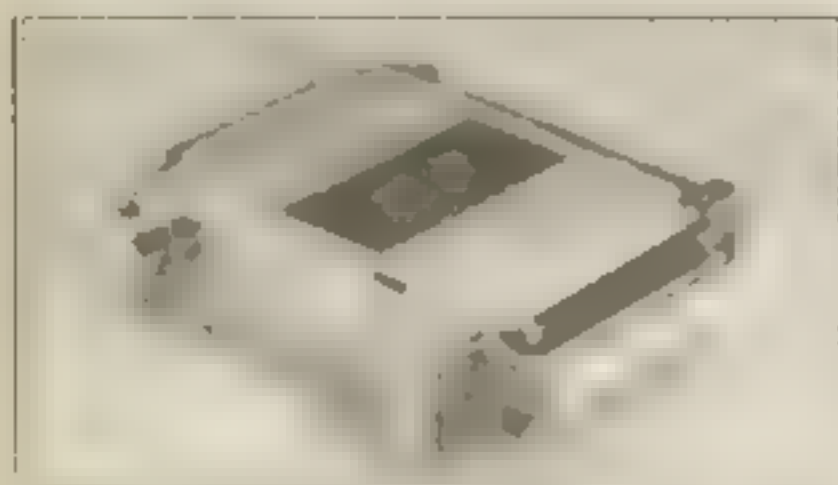
LIFETIME GUARANTEE
ALL PRICES INCLUDE DISKETTE LABELS ENVELOPES AND VAT
ORDER NOW WITH POSTAL ORDER OR CHEQUE MADE PAYABLE TO EURODATA, OR TELEPHONE YOUR ORDER USING MASTERCARD & VISA. SUBJECT TO AVAILABILITY
ADD £3.25 P&P



LOWEST
PRICES
FOR HIGHEST
QUALITY

BACK IT UP

SUPERCARD AMI-II



100% Backups
Available for all Amigas
Transparency option
(invisible when not in use)
Quick & Easy to install
Works on all NTSC-PAL

Compatible with all 3.5" and 5.25". This includes: APPLE - ATARI - Commodore 64/128 etc..! Full Verify Option: No more re-copying! Copies all of these protection schemes: WEAK BITS - STRONG BITS - LONG TRACKS - SHORT TRACKS - DATA COMPRESSION and EXPANSION CRITICAL TRACK LENGTHS. --- NOTHING SLIPS BY ---

With every SuperCard AMI-II you will receive NIB - V20 the most popular American Shareware copier FREE!
 Retail Value: £22.00

£69.00

SOFTWARE MADNESS

16 BUTLIN ROAD, LUTON, BEDS, LU1 1UD

For more information contact
 Steve on Luton: 0582 483640

LOOK!

AMAZING END OF SEASON SALE OFFERS

3 1/2"
 Inc. Labels

37p

BULK BUYERS LOOK!

50 3 1/2 DS/DD £21.00
 100 3 1/2 DS/DD £38.50
 150 3 1/2 DS/DD £58.00
 200 3 1/2 DS/DD £74.00
 400 3 1/2 DS/DD £140.00
 500+ 3 1/2 DS/DD £Call
 Prices incl. VAT & P&P

LOOK! DISK BOXES

40 cap £4.00
 80 cap £4.25

STACKABLE BOXES

150 cap £15.50

3 1/2 DS/HD
 80p

SONY
 BRANDED
 74p

5 1/4 DS/DD 23p
 5 1/4 DS/HD 45p

SONY BULK
 3 1/2 DS/DD
 41p

★ ALL DISKS CARRY A LIFETIME GUARANTEE ★

VAT included ADD £3.00 P&P. ADD £9 next day delivery

AMIGAS		Mouse Mat.....£2.50	ATARIS
SCREEN GEMS.....£355		Cleaning Kit.....£2	DISCOVERY.....£259
BATPACK.....£355		Ram Pack.....£35	Turbo Pack.....£350
FLIGHT OF FANTASY.....£355		+ clock.....£40	EXTERNAL DRIVE + PSU.....£67
CLASS OF 90'S.....£493		Cumana drive.....£66	Zip Stick.....£11
FIRST STEPS.....£510		3.5" ext drive.....£57	

★ QUICKJOY JET FIGHTER JOYSTICK £12 ★

CALL OR SEND CHEQUES TO B.C.S LTD
 349 DITCHLING ROAD, BRIGHTON BN1 6JJ

Tel: 0273 506269 (mobile phone: 0831 279084) days 24 hours.

drawing and other graphical areas, but there are currently versions of Exile and Frak working.

Arxe told me the only problem at the moment is that the games are actually too fast and will need to be slowed down, apparently docking is nigh on impossible! Arxe is also still trying to ascertain the holder of the copyright for the Spectrum ROM. This is that is holding back release of the eagerly awaited Spectrum emulator, The Speculator. Again, perhaps a package with the emulator and some games is possible. With any luck it might actually see the light of day by the end of the year.

Finally from Arxe is the MultiFS filing system. This is a very natty utility that allows IBM, ST and BBC DFS format disks to be read quite happily by the Archimedes. Once installed, MultiFS behaves in exactly the same way as an ADFS drive, including all loading, saving and copying functions, as well as free space and disk formatting. Full hierarchical directories are supported and it will even deal with PC emulator hard disk partitions. In fact you'd never notice the difference between it and your usual filing system. This for £35? How can you go wrong!
 Arxe on 081-534 1198.

CAN I PLAY WITH MADNESS?

The more alert of you may have noticed a game rather similar to Terramex lurking about on a couple of stands. This isn't really that surprising (the similarity that is) as it was, in fact, written by the same person! This new game, Mad Professor, even has a similar feel to Terramex and the graphics are certainly reminiscent of the head-scratching missionary! In essence you control the prof and have to close down five laboratories, I'm sure there must be a good reason why! This

definitely a pick up and explore game - quite a welcome change from the current plethora of bomb-them-to-bits type affairs.

More news on the same, i.e. non-violent, lines comes from Magnetic Scrolls. Its latest adventure, Wonderland, is currently undergoing final bug testing (hooray!) but may not actually be available until early next year (boo!). Virgin, which will be selling it, wants to hold off release until after the PC, ST and Amiga versions are ready, so details such as loading pictures, packaging and advertising are finalised. More details as and when I hear.

THE FRENCH CONNECTION

The only other game I managed to see at the show was Tactic. This is a possible release from Systeme, the French company responsible for the circular breakout game Ballarena. Tactic is very much a second generation Tetris and is in fact an exact conversion of a French arcade game. As in Tetris, you must guide falling objects and attempt to make lines. The difference being that in Tactic the shapes are coloured squares and the lines need only be three long, but in any direction. Numerous bonus squares appear giving you extra time or points. There is also a two player mode. Systeme is on (010 33) 67 70 53 97.

And finally this week, a small piece of news from Ireland. Due to recent cutbacks, Bytron, the only Acorn distributor in Ireland has had to be closed down. However, all is not doom and gloom as the managing director and four former employees have set up a new company, Award Computers Ltd, which will continue where Bytron left off. Award can be contacted on 0001-954 511/2/3/4

Ken Courmarin

PC

SHOW STOPPERS

Did you manage to get along to the Computer Entertainment Show at Earls Court then? I haven't been able to find out any figures for attendance, but on the public days, Saturday and Sunday, the place was jam-packed.

For my money (well, I'm bound to say it, aren't I?), the main attraction of the show was the Amstrad stand. No fewer than 42 new machines were set up and running console software. Very little of it finished and ready for distribution yet, but what was on show was very impressive.

But for the best selection of console software, visitors could do no better than try out the new promotional unit Amstrad has designed for retailers to put in their shops. Shaped like an arcade cabinet, it houses a monitor, GX4000 console, game paddles and a rack which will contain all the latest software. A colourful 'front end' lets you choose from 12 different games, and the idea is that punters can actually play the games in the shop before they decide to buy. Can't be bad! That move alone should not only double Amstrad

console and software sales, it shows just how much thought (and cash!) Amstrad has put into the new machines.

Most of the games on the demo unit were old favourites. Batman - The Movie, Barbarian II, Klax and Operation Wolf didn't look much different to the CPC versions, but then maybe they're not finished yet. Burnin' Rubber was there in all its glory, as was Fire & Forget II. Titus also had a (rather bare-looking) version of Crazy Cars II installed. Two French tennis sims - Ubi Soft's Pro Tennis Tour and Loricels' Tennis Cup - were on the unit too. In both cases, the console hardware had been used to turn the main playing sprites into highly-detailed 16-bit-quality characters, while Tennis Cup had a lot more colours in the background.

The remaining two games were extremely interesting. One seemed to be called No Exit, but there was no indication of the publisher. It was a martial arts kick-'em-up set against excellent backgrounds. Finally, Gremlin's Switchblade is a cutesy kick-'em-up which, boldly, doesn't go for 16-colour mode, even with the advantage the



• Amstrad's new console demonstration unit, being ably demonstrated by ex-CPC columnist Steve Carey. It should be appearing in shops soon. (The console unit, that is.)

uprated hardware. Instead, Gremlin has gone for small, highly-detailed sprites. The designers have, however, used the new sprite hardware quite cleverly. Although the game is programmed in four-colour mode, using some of the hardware sprites as objects the programmers have got eight, 16 and even 20 colours on-screen at once.

The only disappointing thing is that Switchblade may never make it to the console. Apparently, Amstrad isn't convinced its quality is good enough. Well, as far as I'm concerned, Amstrad is completely wrong. Still, we'll all just have to wait and see, won't we.

The rest of the show was mildly disappointing. Where were all the new console games? I did think the show would be used as a platform to launch them all, but I guess everyone is simply gearing up for Christmas.

PLUGGING INTO THE PLUS

Anyone who's got a CPC at the moment and is thinking of upgrading to a Plus, will be worried that all their old peripherals won't work. The new Plus models have a proper D-socket expansion slot, instead of the old machines' rather crude edge-connector.

Thanks to WAVE, however, there's nothing to worry about! The company has put together a special D-plug-to-

edge-connector adapter that simply plugs into the back of a Plus and accepts all standard CPC peripherals.

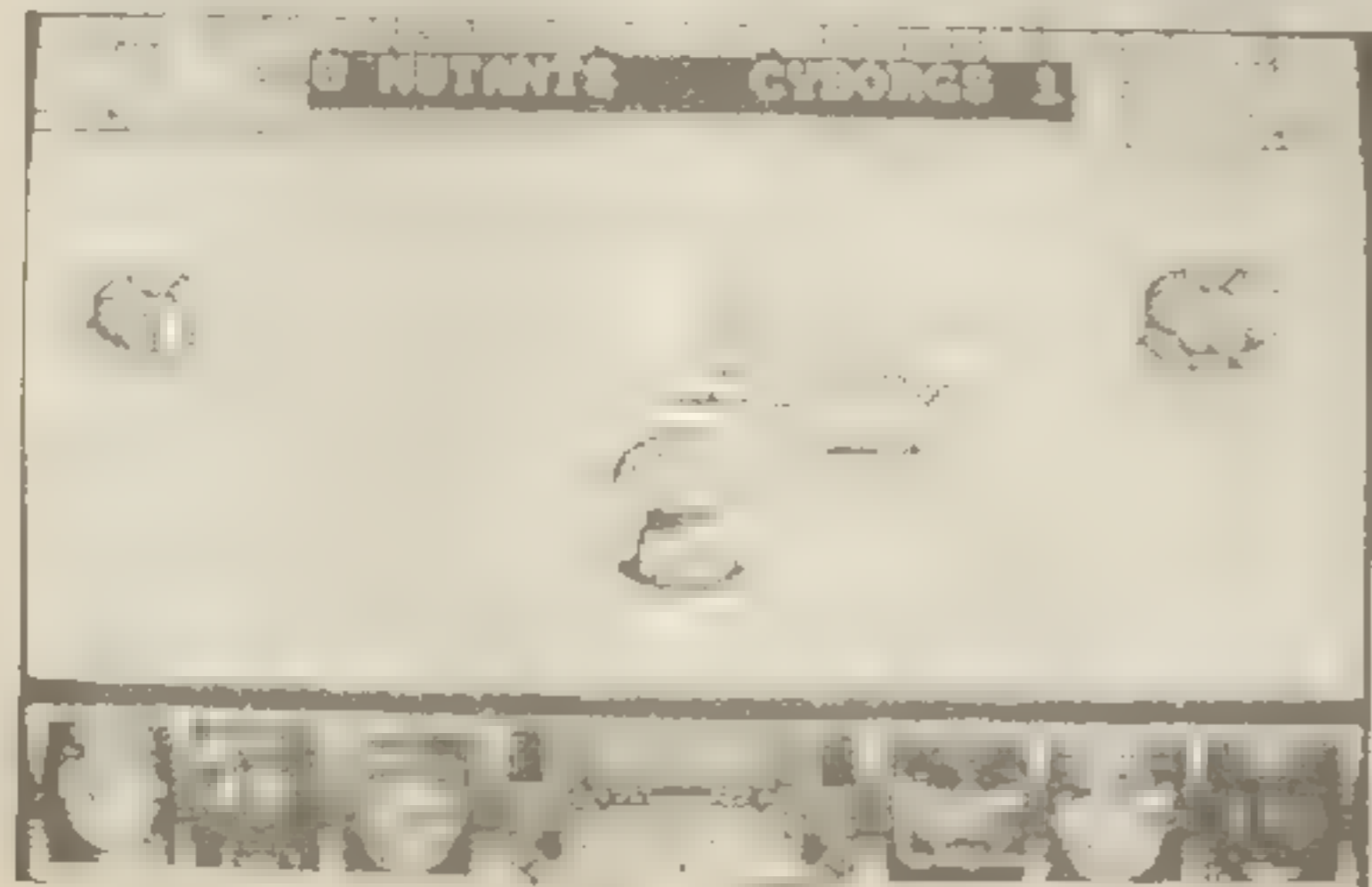
We haven't had a chance to check everything, such as disk drives, RAM packs and the like, but our ROM boxes and software work fine. I'll let you know if there are any add-ons which don't work when I come across them, but for the time being at least it looks like upgraders have nothing to worry about. Now all we need is for someone to put together a tape-loading interface for the 6128 Plus.

WAVE's adapter costs £10, with postage and packing a further £1.15. Call 0229 870 000 or write to WAVE at 1 Buccleuch Street, Barrow-in-Furness, Cumbria LA14 1SR.

SKATE WARS

OK, I know this is the third week in a row I've reviewed a Ubi Soft game, but those Frenchies just sent this excellent batch of software in out of the blue and I've been playing them ever since.

Skate Wars is the least ambitious of the bunch really. You're not saving your kingdom from an evil ruler, as in Iron Lord, and you're not sucking your way through five long levels as you are in Night Hunter. Instead, it's just you, your opponent, a pitch and a ball. Except it's actually an ice rink rather



• Ubi Soft's Skate Wars. It makes ice hockey look like a walk in the The PD Column.

COMPUTERTEC

HIGH QUALITY AMIGA/ST SPECIALISTS

HOTLINE (0502) 584908

HARDWARE U.K. ONLY (Free Delivery) (Courier £5.00)		E-Motion		GRAPHICS & VIDEO	
Amiga A500 F.O.F. Pack inc TV		F29 Retaliator	£17.50	Aegis Video Tiler	£82.75
Modulator, F29, Robot Monsters,		Fast Break Volleyball	£12.50	Credit Text Scroller	£20.90
Rainbow Islands +		Flendish Freddy	£17.50	DPaint III (Pal 1MB)	£57.50
10 blank disks	£368.95	Flood	£16.90	Real Things Birds	£20.90
Amiga A500 Batpack inc TV		Ghosts & Goblins	£14.50	Deluxe Video III (Pal 1MB)	£67.75
Modulator, Batman, Interceptor, New		Grand Prix Circuit	£11.50	Digipaint 3.0 (Pal)	£58.90
Zealand Story, DPaint II + 10 blank		Hit Disks Vol 2	£13.50	Pholon Paint (Pal)	£12.50
disks	£368.95	Hybris	£11.50	Pholon Paint II (Pal 1MB)	£21.50
Amiga A500 Class of 90's Pack inc		Indy Jones Action	£15.50	Professional Draw 2 (1MB)	£158.50
TV Modulator, Educational		It Came From Desert	£16.50	Pro Video Plus	£177.90
Pack	£499.95	Kick Off Extra Time	£8.90	Script 3DXL (Pal 1MB)	£112.00
MONITORS & PRINTERS		Klax	£15.50	Trip-A-Tron	£21.75
Philips 8833 14" Col. Mon.	£248.94	Leisure Suit Larry 1	£19.50	Turbo Silver	£97.50
Commodore 1084S 14" Colour		Leisure Suit Larry 2	£21.50	TV Show 2 (Pal 1MB)	£57.00
Monitor	£235.95	Leisure Suit Larry 3	£21.50	TV Text Pro (Pal)	£98.50
Epson LX400 9Pin	£179.95	Menace	£11.50	Video Frame Grabber	£98.75
Epson LQ-550 24Pin	£348.95	Nuclear War	£16.90	(Pal/B+W)	£16.25
Seikosha SP-2000AI 9Pin	£218.95	Op. Thunderbolt	£17.50	Video Colour Upgrade	£79.50
Seikosha SL-92AI 24Pin	£308.95	Operation Wolf	£16.90	MUSIC APPLICATIONS	
QUALITY JOYSTICKS & ACCESSORIES		Outrun	£9.50	Aegis Sonix 2.0	£45.75
Competition Pro Clear Extra		Padland	£9.75	Deluxe Music	£50.25
auto	£14.50	Police Quest 2 (1MB)	£17.50	Music X (U.K. Version)	£94.50
Competition Pro 5000	£13.50	Populous	£17.75	Mastersound Digitizer	£34.90
Quickshot II Turbo auto	£9.50	Promised Lands	£8.75	Future Sound Digitizer	£77.90
Quickshot VI Jetfighter-SV128	£13.50	Powerdnt	£10.50	MidiMaster Interface (5 Ports)	£31.90
Naksha Mouse	£31.50	Precious Metal	£17.75	Midi Lead	£3.00
Mouse Mat	£4.50	Red Storm Rising	£17.50	BUSINESS & EDUCATION	
100 Capacity lockable disk box	£8.75	Rick Dangerous	£16.50	Advantage	£77.50
10x3 5 DSDD blank disks		Rorke's Drift	£16.90	Arena Int. Accounts (1MB)	£115.00
+ labels	£7.50	RVF Honda	£16.90	Discover Maths	
10x3 5 DSDD Sony disks		Sim City	£18.50	Discover Numbers	
+ labels	£8.50	Speedball	£13.00	Discover Chemistry	
3 1/2" Drive Head Cleaning Kit	£5.50	Stunt Car Racer	£18.90	Discover Alphabet (EACH)	£13.90
Disk labels 2p EACH or £15 per 1000		Super Hang-On	£14.50	Fun School 2 Under 8's	
GAMES		Super Wonderboy	£17.50	Fun School 2 Over 8's (EACH)	£12.50
Amos Games Creator	£33.50	Street Fighter	£8.90	Robot Readers: 3 Bears	£22.90
Ant Heads	£12.75	Tin Tin on the Moon	£14.75	Spellbook 4-8 or 7+ (EACH)	£18.50
688 Attack Sub	£17.50	Trivial Pursuit Genius	£14.75	HiSoft Basic	£58.00
Batman The Movie	£15.90	Turbo Outrun	£16.90	Home Accounts	£20.75
Battle Chess	£16.95	Turbo Cup	£11.50	Home Office Kit	£97.50
Battle of Britain	£18.75	TV Sports Football (US)	£17.50	Kindwords 2.0 (1MB)	
Cadaver	£17.90	TV Sports Basketball	£16.25	Recommended	£38.75
Conqueror	£17.50	The Three Stooges	£12.75	Mavis Beacon Typing Tutor	£19.75
Corporation	£17.90	Turcan	£16.90	Micro GCSE Maths	
Double Dragon II	£15.50	Teenage Mutant Turtles	£21.50	Micro GCSE French	
Dragons Breath	£20.50	Untouchables	£17.50	Micro GCSE English (EACH)	£19.25
Dragons Lair (1MB)	£32.50	Ums 1	£16.50	Microtext Word Processor	£19.25
Dragon's Lair II	£32.50	Ums 2	£17.50	Microbase Database	£18.25
		Voyager	£9.50	Pen Pal (Pal 1MB)	£98.90
		Wicked	£8.75	Prodata	£54.00
		Who Framed Roger Rabbit	£14.50	Protext 4.2 (1MB)	
		Wings of Fury	£17.50	Recommended	£84.90
		Wild Street	£17.75		
		Xenophobe	£16.50		
		Xenomorph	£16.90		
		X-Gul	£16.50		

Please send Cheques/Postal orders MADE PAYABLE TO: COMPUTERTEC

COMPUTERTEC

Unit 1, The Arcade, 1/2

Phone (0502) 584908

HOME CALLERS WELCOME

R.S.T COMPUTER MEDIA
MAIL ORDER/HARDWARE/SOFTWARE

0582 872754

AMIGA SPECIALIST

SPECIAL CHRISTMAS OFFER

With EVERY
Amiga A500
★ SCREEN
GEMS ★
★ FLIGHT OF
FANTASY ★
★ OR ★
★ BATPACK ★

1 MEG AMIGA
MEGAPACK

£399 INC VAT
PLUS JOYSTICK

FREE
24HR
DELIVERY
SECURICOR

★ SPEEDKING
JOYSTICK ★ 1
MEG OF MEMORY
★ READY FITTED
& TESTED ★ TV
MODULATOR ★
WORKBENCH ★
★ MOUSE ★

SCREEN GEMS

★ Shadow of the Beast II
★ Back to the Future II
★ Days of Thunder
★ Knightbreed
★ Deluxe Paint II

FLIGHT OF FANTASY

★ F29 Retaliator
★ Rainbow Island
★ Escape from the Planet of
the Robot Monsters
★ Deluxe Paint II

BAT PACK

★ Batman - The Movie
★ F-18 Interceptor
★ New Zealand Story
★ Deluxe Paint II

DISK DRIVES
CUMANA 3.5

£69.00 + P&P

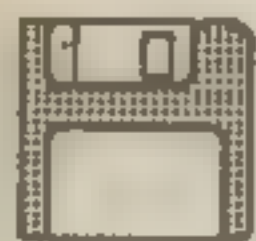
20 MEG
Amiga
A590
Hard drive

£339

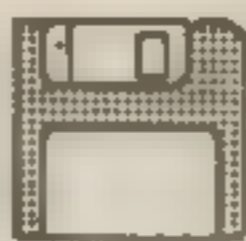
+ P/P

3.5
DS/DD
135 TPI
DISKS £3

RING NOW 0582 872754 OR WRITE R.S.T COMPUTER MEDIA,
57 RIDGEWAY, KENSWORTH, BEDS LU6 3RL



DISCS SPECIAL OFFER



BULK VERBATIM 3.5" DSDD - 39p each
BRANDED VERBATIM 5.25"

DSDD - 36p each

DSHD - 58p each

Above prices include VAT, just add £1.50 for postage and packing.

★ ★ SHAREWARE £1.00 INC. P&P ★ ★

★ **EXTRA DISCOUNTS** ★

(Including VAT + P&P)

VERBATIM BULK 3.5" DSDD	VERBATIM BRANDED 5.25" DSDD
50.....£20.70	50.....£17.00
100.....£39.67	100.....£33.00
250.....£93.15	250.....£81.00
500.....£184.00	500.....£160.00
750.....£270.25	750.....£239.00
1000.....£345.00	1000.....£316.00



OWN BRAND:
Excludes VAT & delivery

All machines come with:

- ★ DELUXE CASE 5 FREE SLOTS
- ★ ★ MS-DOS - V3.3
- ★ ★ ★ TILT MONO MONITOR
- ★ ★ ★ ★ 12 Month warranty
- ★ ★ ★ ★ ★ 102 KEY KEYBOARD (EXCEPT XT)
- ★ ★ ★ ★ ★ 3.5" 720K FLOPPY DRIVE
- ★ ★ ★ ★ ★ ★ 1MB RAM

LOW COST ENTRY PC-XT	£360.00
AT 286-12 AT 20MB	£650.00
386SX 16MHZ 45MB.....	£950.00
386 25MHZ 45MB.....	£1260.00
486 25MHZ 100MB	£2800.00

Software and other hardware also available - call for details

Please send cheque with order to:

BUSIBYTE LIMITED

156 Balgore Lane, Gidea Park, Romford, Essex.

Telephone 0708 724845

than a pitch, and your ball is solid steel. Oh, and your opponent is an armoured, psychotic thug. Apart from that, it's just clean, honest fun.

The aim is simple. You have to skate down the pitch, line up in front of the enemy goal and slip the ball past the keeper. At the same time, your opponent is trying to get one past your team-mate. How do you get the ball off the other guy? Kick his legs out from under him! Might as well - he'll do the same to you! The first player to score five goals ■ the winner (the goalies themselves are pretty easy meat), and then you go on to the next round.

Ah, what's this? A couple of solid-looking mushroom shapes have appeared on the ice. They are solid, too. Hit one of these and you're sent

sprawling, losing valuable seconds as your opponent skates up the ice with the ball. Later levels include bottomless pits and more obstacles.

Graphics are excellent, with detailed and well-animated sprites, and the whole thing is fast and smooth. It's this, and the sheer playability of *Skate Wars*, that makes it such a great little game. Look out for it.

100TH BIRTHDAY!

Just in case you hadn't noticed, this is the centenary issue of *New Computer Express* and the CPC Column. Well done to the Express team! (Send all your telegrams, birthday cards, presents, cheques etc to me at the usual address.)

Rod Lawton

64

NEVER SAY NEVER

Despite the reticence to show anything at the CES, software developers are wisely entering the C64GS rumour market at a healthy rate. Anco kicks off with *Kick Off*, *Turrican 2* and *X-Out* only weeks after ■ Singh said he wouldn't do anything on cartridge until his company had written its own development system (so don't hold your breath for *Turrican 2*). Electronic Zoo might convert *Subbuteo* and *Orcas*. Neither lend themselves to further development but they would make a happy bundle. And speaking of bundles, apart from Commodore's own (*Klax*, *Freddy*, *International Soccer*, *Flimbo's Quest*), *Jack Attack* may also finally attain solid state.

The Disk Co is said to be dusting off *Rick Dangerous* and *Stunt Car Racer* and, again, these would make a formidable bundle. More exciting would be enhanced versions of both. Meanwhile, not to be left out ■ the confusion is MicroProse, which is dropping names like *Rick Dangerous II* (excellent) and *Starglider II* (why?), or *Thalamus* who are apparently going to convert everything they've ever done.

DON'T WORRY

Ocean will not miss out, ■ t'message from up north. It must be safe to take an improved *Batman* as given and there seems to be more. *Special Criminal Investigation* (the *Chase HQ* sequel), *Robocop 2*, *Operation Thunderbolt* and *Navy Seals* are all names being bandied about by the careless - or ■ that 'well informed'? The fact (just about the only one concerning console software at the moment) is that ROM versions of *Navy Seals* and *SCI* are both mouth-wateringly near to completion and show exactly what the C64 has missed out on by not having a ROM software base in the past. In *Navy Seals*, an ultra-well defined character sprite leaps around detailed backgrounds, helping itself to the large animation routines that the developers finally have access to. Only the soundtrack needs to be added in fact. *SCI* makes more use of speed than fancy graphics, though it offers some of both. ■ certainly would appear that this is going to be the fastest

driving game ever on the C64. Ocean is making a smart move by ensuring its first console releases are completely new.

If what's being said about Mindscape is true, that it's working on a version of *Ultima VI* which will actually be battery-backed (there's no reason why this can't be done) then it will be the first time since the original that any *Ultima* game will have been truly playable on anything smaller than a 16-bit machine. Another role-playing game, from Ubi-Soft, is also doing the tongue-wagging rounds at the moment. But despite its title, *B.A.T.* has nothing to do with big business take-over failures, so how it might do is anybody's guess.

US Gold is way down, disappointingly so, in the 'cannot confirm or deny' stakes at the moment. There was only talk ■ one game being converted to cartridge and that was *Moonwalker*. Of course, nobody believes that and that includes USG. So what are they doing? Keeping shunt, that's what.

System 3 definitely isn't mucking around. *Last Ninja 3* will only be available on cartridge at Christmas; the launches ■ other versions have been postponed. Probably following *LN3* will be *Last Ninja Remix*, *International Karate Deluxe*, *Vendetta* and *Myth*, in no particular order.

The really wild speculation department has been occupied by Domark's *Vindicators*, *Cyberball*, *The Spy Who Loved Me*, *Badlands*, *Stun Runner* and a special version of *Hard Drivin'*. As these are all fresh entries to the 64 world anyway, their appearance in ROM could really do the console some favours.

A quick round-up of the rest includes Infogrames (*Prohibition* and *Bubble Ghost*), Mirrorsoft (*Bloodwych* and *Falcon*) and Titus (flip a coin: if it's heads then *Dick Tracy* is on). Finally, Epyx has just got to live up to what's being said about it and bring out *The Games* (*Summer and Winter* and *California*). Yes, well...

SHOW TIME

Thanks to Adrian Betts for this news: If you're likely to be in the Tamworth area

on Saturday December 1, do your curiosity a favour and take it to the eight-bit Micro Show, being held at the Tamworth Arts Centre. As its name implies, the show will have something to offer most eight-bit computer users and loyal Commodore comrades will be able to see something of the support that still exists for the C16, Plus 4 and - a moment's silence, please - the VIC 20, not to mention the C64 itself. Both a C64 and a Plus 4 will be set up running games for public participation and software will be on sale.

Entrance to this Aladdin's cave of computing will be a can't-say-fairer-than-that 50p and you can stay for as long as you like between 9.30am and 4.30pm. Anybody under the age of ten

walks in free. Over twenty stands are currently booked. There will be plenty of PD and demo material on which to feast your eyes as well. Incidentally, a few stands are still available for any user group or company that doesn't want to miss out.

Further details are readily forthcoming from Adrian Betts at Turbo, 8 Healey, Lakeside, Tamworth, Staffs B77 2RF. ■ kind enough to enclose an SAE.

Next week: A new operating and terminal emulation system for the C64; pokes; hardware

P.S. I want to hear from User Groups and PD feeders. Prove you exist.

Sean Masterson



OFF WE GO TO THE SHOW

It's been a busy couple of weeks for shows. First the Computer Entertainment Show, then last week's Business Solutions '90. Both were in Earls Court, both featured computers, but they could not have been more different.

The Computer Entertainment Show, as you must have noticed from Express 98, was about games; Business Solutions was about everything else. CES was held in the balcony at Earls Court, Business Solutions was in the main hall. CES was thousands of teenagers being smiled at by girls in power-dressing short skirts; Business Solutions was thousands of men in suits being smiled ■ by girls ■ power-dressing short skirts.

The PC made a better showing at CES than it did at Business Solutions. There was some new software, but not a lot, and some new hardware, but not a lot. But the key to it was that the business show was stolen by the new NeXT machines.

This isn't the place to talk about them, but if you haven't seen one yet, go out of your way - miles out of your way - to find one and have a look. Your drab old 486 with Super VGA monitor will never look the same again.

COMING OF AGE

CES really saw the PC games market come of age. A rough count showed more PCs in evidence than STs, but that was partly to do with the fact that it's easy to 'cheat' with a PC game - if the programmers couldn't make it go fast enough, bung a few more megahertz into the machine you demo it on and you're away.

Most games seem to be getting a PC version these days, not just the American titles which have been imported. And, best of all, the PC seems to be the machine of preference for programmers of strategy games of the *Populous/Sim City* vein.

Star of the show PC-wise was Virgin's *Wonderland*. This ■ an adventure game which uses multiple windows in a mouse-driven environment. For instance one window contains text; a description of what you see and a prompt for the parser to type in "Go

north" or what have you. Another window contained a map of the places you have been; retracing your steps is a mouse-click away. More windows show your inventory and the objects around you. But most impressive is the graphics window which shows you the scene in VGA resolution.

If this sounds like just another adventure then seek out a copy and see for yourself - it is a different kind of game altogether.

SMALL AND FURRY

Back to last week's business show and the two stand-out PCs were Commodore's C286-LT and Panasonic's CF-270. Both have similar specifications; a 286 processor, 20Mb hard disk, 3.5-inch floppy and a VGA screen in a box small and light enough to hold in your hand without a handle.

Looking more closely reveals a few differences however. For a start the Panasonic has a Fluorescent Triple Supertwist Nematic LCD, while the Commodore has only a Supertwist Nematic LCD. The upshot of which ■ that the Commodore has a good blue display and the Panasonic has a superb white one.

Similarly, with processor speed the Panasonic outguns the Commodore by 4MHz (16 to 12), has 16 grey scales to Commodore's eight and a three hour battery life to the C286-LT's two (lapped to a claimed six in Commodore's 'PowerSave' mode).

So the Panasonic has ■ then. Well, no. It has a truly awful-feeling keyboard for a start and it looks a bit cheap, while the Commodore exudes class from its brush effect case, and let's not forget that the Commodore is £500 cheaper ■ £1,999.

Both machines are going to be runaway successes; executives will kill for the Panasonic and the Commodore machine will finally get the firm the recognition it deserves in the PC world.

You can find Panasonic on 0344 853942 and Commodore on 0628 770088, and you can will ■ able to read a head-to-head review of the machine in *Express* soon.

GET SOFT

Software-wise things were quiet, but a

MEGA SALE

All disks £1.00

Amazing membership bargains.

Beginner Pack, Art Pack etc.

Recoil PD

10 Down Side

Epsom

Surrey

Tel: 0372 721939

MERLIN COMPUTERS

OUR PRICES ARE MAGIC

AMIGA 500 ONLY £379.00 INC BATMAN PACK

ATARI 520 STE POWERPACK£359.99

TRY THE ST's MIDI POWER

CASIO MT 240 AN EXCELLENT LOW COST MIDI KEYBOARD £89.99
OTHER CASIO KEYBOARDS ALSO AVAILABLE

■ MEG 3.5" DISK DRIVES ST AND AMIGA£75.00
ATARI STFM 1 MEG INTERNAL DRIVE UPGRADE£89.99

STAR LC 10 COLOUR PRINTER.....£215.00

STAR LC10 MONO PRINTER.....£169.99

STAR LC10 COLOUR HEAT TRANSFER

RIBBONS - IDEAL FOR PRINTING YOUR OWN

T-SHIRTS ETC.....£17.99

BLANK DISKS AT
AMAZING LOW PRICES

10 3.5" DS/DD life time guaranteed£6.99
10 5.25" DS (per 10)£3.50

Bulk buyers please phone for bulk prices

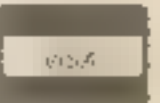
WE STOCK MANY ITEMS NOT LISTED HERE. PLEASE PHONE
FOR ANY ITEMS NOT LISTED.

All prices include VAT and P & P

PLEASE NOTE ATARI 8-BIT OWNERS - WE SUPPORT YOU
PLEASE PHONE FOR DETAILS

MERLIN COMPUTERS

62 Chester Road East, Shotton,
Deeside, Clwyd CH5 1QB
Tel: 0244 822597



POST EXPRESS

Proprietor: Mark A. Cameron.
All computers are genuine UK specification.
All computers include a FREE HOLIDAY PACK.

Please make cheques/P.O.'s etc
payable to POST EXPRESS.

POST EXPRESS,
HILLCREST HOUSE, SUITE 3,
49A VICARAGE ROAD,
LONDON E10 5EF
TEL: 081 518 7494

☆ **FREE 2 YEAR WARRANTY** ☆ WITH ALL COMPUTERS BELOW

HOME/BUSINESS EXTRA PACK ATARI 1040 STE

EXCELLENT PACKAGES!

ST Word Pro	£49.95
ST Database	£49.95
ST Spreadsheet	£59.95
ST Graph	£39.95
First Basic	£49.99
S.T.A.C.	£39.95
Hyperpaint	£24.99
Prince	£24.99

ATARI 1040 STE	£339.72
TOTAL	£499.99

£464

OUR PRICE

BATMAN PACK, FLIGHT OF FANTASY PACK, EDUCATIONAL PACK AMIGA 500

A520 Modulator	£24.99
F29 Retaliator	£24.95
Deluxe Paint II	£49.95
Rainbow Islands	£24.95
Robot Monsters	£19.95

AMIGA 500	£399.99
TOTAL	£544.78

£364

OUR PRICE

A520 Modulator	£24.99
Batman The Movie	£24.95
Deluxe Paint II	£49.95
New Zealand Story	£24.95
Interceptor	£24.95

Amiga 500	£399.99
TOTAL	£549.78

£364

OUR PRICE

AMIGA 500
+ OVER £300
WORTH
OF SOFTWARE

£564

OUR PRICE

SUPER SOFTWARE PACK ATARI 1040 STE

22 TOP QUALITY GAMES!

Arkanoid 2, Buggy Boy, Ikari
Warriors, Marble Madness,
Thundercats, Wizball, Xenon,
Star Quake and many more plus
word processor, spreadsheet,
diary and address book file.

£453.98

ATARI 1040 STE £499.99

TOTAL **£953.97 OUR PRICE**

£464

COMMODORE

Amiga 2000 + keyboard.....£1099.90

Amiga 2000 + 1084 colour monitor.....£1490.90

Power Drive 31/2 (ext) 1Mb disk drive.....£78.99

Philips CM8833 Stereo Colour

Monitor.....£269.99

ATARI

520 STFM Discovery Pack

+ £300 free S/W.....£264.00

520 STE Power Pack

+ £530 free S/W.....£364.00

MEGA 1 ST - 1Mb CPU - keyboard.....£539.95

MEGA 2 ST - 2Mb CPU - keyboard.....£890.95

MEGA 4 ST - 4Mb CPU - keyboard.....£1199.95

☆ PORTABLE ☆

STACY 2Mb + 20MB hard disk -

LCD screen.....£1599.90

STACY 4Mb + 40MB hard disk -

LCD screen.....£1899.90

ALL ABOVE COME COMPLETE WITH
PROFESSIONAL PACK 11 £234 OF
ESSENTIAL BUSINESS SOFTWARE

PHONE OR WRITE FOR YOUR FREE
CATALOGUE ☆ FOR ENTERTAINMENT,
CREATIVITY, EDUCATION AND BUSINESS

few things caught my eye.

Legacy is an extremely promising looking Windows 3 word processor, although that seems inadequate as a label. As well as all the normal WP functions, Legacy can handle graphics, including rotating and cropping, and has its own drawing tools. The spec sheet fills three pages of A4 - you get the idea.

It looks impressive and as soon as I get a copy in my hands I'll let you know more. ■ you are impatient you can find the publisher, NBI, on 0753 74118. The price is around £450, but there are huge discounts available for the next few weeks.

Another Windows 3 product looks even more interesting. PagePlus is a powerful page layout program supporting full typographic controls, style sheets and the pasteboard so beloved of PageMaker users. It contains a unique method ■ controlling type; when you highlight text you can use an 'attribute controller' to directly alter the text with the mouse. For instance, you can select text size, and sliding a scrollbar affair up and down resizes the text on the screen as you drag. This could produce horrendous results in the hands ■ a lazy typographer, but it certainly makes layout easy.

But I haven't mentioned the best bit

about PagePlus; it costs £99. No, I haven't missed a digit out. The publisher hopes that everyone who uses Windows will buy it and treat it as an accessory like Write or Paintbrush.

I have a copy of PagePlus and we'll be running a review ASAP. If you can't wait phone the publisher, Serif, on 0602 701022.

BEST OF BOTH WORLDS

Quarterdeck had a product on show which isn't actually available yet, but which could turn out to be the most important thing there. Called Desqview-X it is identical to the Desqview multi-tasking system, except that it can run DOS and Unix windows at the same time.

It appears to work just fine. Running on an Amstrad laptop it had no trouble running two DOS windows with two Unix X-Windows demos simultaneously. Even when I persuaded one of the DOS windows to crash, the Unix ones kept on going as if nothing had happened.

When this product is ready to ship, Quarterdeck will have a monster on its hands.

Unix addicts can whimper gently down the phone about release dates on 353-1841444 - that's an Irish number.

Stuart Anderton



CHRISTMAS AGAIN

If you wanted all the big driving games last Christmas, but found your lovable relatives went for presents of a more socky/underpanty/Hai Karate aftershavey nature, Domark has put together a compilation of the four major fast car titles that had the tills ringing festively.

Wheels Of Fire comprises the following: Chase HQ, the superb car-chase game where you have to bump the criminal's flash sports cars off the road; Turbo Outrun, a so-so update of boy racers fave arcade game; Power Drift, an exciting jiggling cabinet arcade game that demanded much of the Speccy and didn't turn out too bad; and finally, Domark's very own Hard Driving, the realistic car simulator that was soon christened 'Very Hard Indeed Driving' by all who played it. The price is £15.99, and that seems pretty reasonable for four games that cost a tenner each less than a year ago. Buy it instead of getting one of those absolutely side splittingly funny car stickers for your Allegro.

NOSTALGIC OLD GIT

Call me a nostalgic old git if you want but there are some excellent games of yesteryear currently re-released at a super bargain budget price that you simply must get. First off, and particularly essential, is the Speccy version of that film they show at Christmas nearly as much as The Great Escape, Star Wars. It's a very

respectable conversion of the sit-in-wire-frame arcade classic, although unfortunately on the Speccy the sound effects are sadly subdued. It brought a hazy tear of nostalgia to my eye I can tell you.

Also out now for £2.99 and well worth bagging up is Rastan, another arcade conversion, this time of a sword and sorcery slasher epic. You control the suitably hunky barbarian with the furry Y fronts and unlikely name and take on the usual monsters in ■ compelling scrolling platform-type game. Both titles are on Ocean's 'Hit Squad' label and are well worth keeping a shelfwards eye out for.

ADVENTUROUS

Maybe it's just me but the adventure scene seems to have gone into a bit of a decline recently with everybody deserting the traditional 'Go north', 'Rub magic knob' type adventures in favour of clever-trousers role playing affairs with graphical interfaces and other such rubbish.

Which is why it's good to hear about the formation of The Adventure Club. This is an organisation for Speccy owners who like playing and writing adventures. The plan is for members of the club to send ■ adventures they've written with PAW, GAC, The Quill or whatever. These can then be made available to everyone else at pretty cheap prices. According to the founder, PT Cimatti, authors will get a royalty on any games sold to members and non

Back to School
**Your computer is
the only teacher
which YOU CONTROL!**

**Whatever your age, whatever your subject
- let your computer help you learn.**

Subjects include ...

**French, German, Spanish, Italian, English
History, Geography, Science, General Knowledge,
Football, First Aid, Sport, England, Scotland,
Natural History, Junior Spelling and Arithmetic**

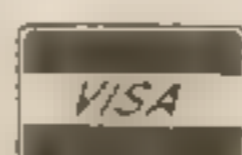
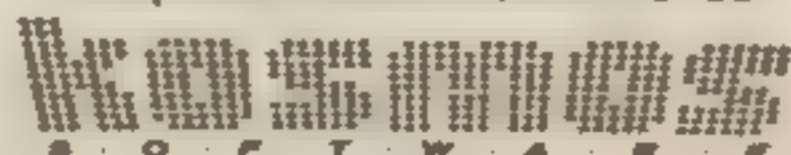
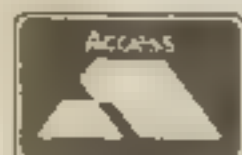
Available for most popular
home & business computers



**Kosmos are specialist producers of Educational
Software designed to help you enjoy learning from your
computer. Our programs even allow you to add your
own lesson material.**

**Write or telephone for a FREE 20-page BROCHURE
of our Educational & Leisure software**
Please state your computer type

Kosmos Software Ltd, FREEPOST (no stamp needed)
DUNSTABLE, Beds. LU5 6BR
Telephone 05255 3942 or 5406



members alike. So maybe it's time you dug out that unfinished mega-adventure that will surely change the face of adventure game playing as we know it, or failing that, give someone ooh, several seconds of fun at the very least.

As a special offer to Express readers, reduced membership fee of £2.50 (which includes your first adventure) is available.

The address is The Adventure Club, 14 Brooks St, Llandudno, Gwynedd, LL30 2TT.

PLAY IT AGAIN SAM

Despite all its problems the SAM Coupé is still generating loads of mail and interest, and I couldn't resist quickly squeezing in this cheat for the rather nice looking *Defenders of the Earth*. On the high-score table type "....ORB" and the wonderful benefit of infinite energy will be yours. Although your clogs still get popped if you fall in the water.

By the way, please let me know either way if you'd like to see the SAM covered in this column from time to time.

OPEN HOUSE

Specy related stuff of every kind is always welcome, so if you've got any comment on Amstrad's absolutely ridiculous and completely stupid decision to stop production of the Plus 3, press releases, tips, pokes, fanzines, user group info or lots of lovely software for review send it to Robin Alway, Spectrum Column, New Computer Express, 30 Monmouth Street, Bath BA1 2BW. I look forward to receiving your bulging jiffy bag!

MIKTOR

Here's the part of the column that's been annexed to a certain person in Faversham, Kent called M Harris or Miktor. Yet again he's managed to come up with hacks for games I haven't even heard of, and as usual we're all eternally grateful.

To get either working type out the appropriate listing. Save it for future use if you want to. Run the thing and start your game tape from the beginning. Thanks again to Miktor.

Robin Alway

```
10 REM OPERATION HANOI (48+128)
20 BORDER 0: PAPER 0: CLEAR 25999
30 LOAD "" CODE: POKE 26113,33: POKE 26116,175
40 FOR N=26117 TO 9E9: READ A: IF A<256 THEN POKE N,A: NEXT N
50 RANDOMIZE USR 26000
60 DATA 50,191,112: REM LIVES
70 DATA 50,208,130: REM TNT
80 DATA 50,149,206: REM AMMO
90 DATA 233,999: REM END MARKER
```

```
10 REM DEADLY EVIL (48+128) ENERGY
20 CLEAR 3E4: LOAD "" CODE: POKE 65247,135
30 FOR N=64824 TO 64830: READ A: POKE N,A: NEXT N
40 RANDOMIZE USR 65025
50 DATA 175,50,214,204,195,56,189
```

• Those pokes in full.



AN COOL BARES ALL

Whatever you use your ST for - games, graphics, education, "serious" work - if you've never mucked around with its musical abilities, you've been missing out.

You're probably already aware that the ST has such a lot of musical software available for it because years ago old Mr Tramiel (bless 'im) had the excellent good sense to include MIDI in and out ports on his new 16-bit computer.

But you may not fully realise that you don't need banks and banks of expensive MIDI keyboard and synthesiser equipment to start making some pretty impressive sounds.

MPH's £39.95 TCB Tracker, written by "AN Cool," aka Anders Nilsson of the Carebears demo team, is one such piece of software (orders on 0603 503382; there's also a demo version for just £2.30). First released at the Earls Court Computer Entertainment Show (the bruises are healing up nicely, thanks), it's been very well received and looks set to become an instant ST classic.

HOLY BAT MUSIC

But Tracker isn't having things all its own way. For another piece of software has been released at a similar price from French games house Ubisoft. Called *Music Master*, it aims to appeal

absolute beginners, offering the opportunity to create music and sound effects using a beautifully simple and bright graphic interface (ie pictures instead of words).

You can create sound waves with the mouse, setting sound parameters or allowing them to be generated randomly, and there are all sort of other features, such as an equalizer, filters, tuning delay, reverberations and so on. And, needless to say, you can save your doodlings and load them up again later for more treatment.

You can, of course, work with a MIDI keyboard or synthesiser, but I suspect *Music Master's* real appeal will be for those who just want to use their ST keyboard.

A little techie stuff and some numbers to keep the anoraks happy: ten voices of music at 15KHz with 8-bits per voice of resolution; 100 per cent machine-code (therefore fast and compact); and up to 60 per cent sound compression for more efficient disk storage.

There is however, one teeny weeny problem. To get access to the maximum of 16 voices offered with *Music Master* you need something Ubisoft calls a BAT MV-16 interface card and headset. Oh poo, I hear you exclaim, just when I was getting all worked up.

Well, not really. Because the

QUANTA

The Independent QL User Group

The Definitive Guide to SuperBASIC by Jan Jones

This highly sought after book has been reprinted by QUANTA Copies are now available for £8 plus £2 p&p from:

QUANTA

The Corner House,
Loxley,
Warwick,
CV35 9JT

Tel: 0789 842 543

Subscription to our group is still £14 UK, and £17 for overseas members. Now in our SIXTH successful year.

3 1/2"

DSDD DISKS

100% CERTIFIED
ERROR FREE

PRICE INCLUDES
VAT & LABELS

ALL OUR DISKS
ARE FULLY
GUARANTEED

40p

100 Capacity Disk Box £5.50: With Disks £4.50
12 Capacity Boxes 95p each £7.50 for 10
Quality mouse mats £2.50
3 1/2 Inch High Density disks £1.00 each.
150 Capacity stackable Posso Boxes at £16.95

AMIGA 512K UPGRADE WITH CLOCK £43.00

PLEASE ADD £2.95 P+P PER ORDER

All our disks are of the highest quality
and are manufactured by Mitsubishi or Verbatim
Cheques/PO's to:-

MEDIA DIRECT - DEPT NCE
11 SAGE CLOSE, HANLEY
S-O-T ST1 3SF
TELESALES HOTLINE:
0782 - 208228





• A slightly different look to the Desktop with NeoDesk.

card - which comes with Ubisoft's BAT game - comes with Music Master for a grand total of £40. (For those who already own BAT, and therefore the MV-16, the price is about a tenner cheaper.)

Music Master is available even as you read this from any shop that stocks a range of ST software a bit wider than titles beginning in "advanced" and ending in "simulator."

A NEW SET OF PINS

How much do you reckon a new 24-pin colour printer would set you back? Would you believe £369? Star Micronics has just brought out the LC24-200, challenging any other printer manufacturer to offer a printer with these features for a similar price.

Actually this is just one of three new machines from Star. The mono version of the LC24-200 is £60 less than the

colour, while the nine-pin version of the same range is a mere £259.

Star Micronics on 0494 471111.

DESKTOP SOLUTION I

If I were really pushed to admit that there is one thing about my ST I am less than crazy about, I'd have to confess that the desktop could be better, and that now, five years after the ST's first appearance and after several improved versions, it still has the capacity to make me livid with frustration and rage (not a pretty sight, I assure you).

How much is it worth to replace? Well, I'd say, about £39.95. Which, funnily enough (or not), is exactly the price of NeoDesk 3, a graphically- and dropdown menu-based, feature-packed piece of software that completely transforms the standard set-up. If you use it just once, I'll hazard that you will

never be able to do without it again.

With it you can access programs, files and folders directly; store files and folders in a temporary clipboard while you reorganise your floppies or hard drive; write important notes directly onto the desktop; retrieve files from the trashcan if you suddenly discover that wasn't the old version after all; automate any series of desktop operations such as opening windows, copying or deleting files; design personalised icons using the icon editor and drawing tools; and even import Degas or Neochrome pictures for use as backdrops.

You can also do away with the ST's unbelievably stupid inter-disk file copying with a smart copying facility that requires just one read of the source disk (and automatically detects the format of the original disk and formats the destination disk to match it).



• This desk ain't big enough for both of us.. the Gasteiner Track Ball.

NeoDesk 3 costs £39.95 from Electric Distribution on 0480 496666.

DESKTOP SOLUTION II

Desk too small? About to fork out hundreds of pounds on a bigger one? Stop! Gasteiner has launched a £39.95 track ball controller that solves those "no room" blues. It's basically a mouse with the ball on top, so instead of you having to make ridiculous combing movements across that eight inches of formica you call your workstation, you roll the ball around under your fingers.

Simple, really. Gasteiners await your call on 081 365 1151.

"Do us a fiver, guv. Ere, did I say £25? Nah, not £20, not £15, not even a tenner. There yer go, just a fiver a game. I'm robbin' meself..."

Thus might we imagine one of the Action 16 team, currently shifting serious amounts of ST software at ridiculous prices. But no, for Action 16 is in fact a branch of none other than Digital Integration, more commonly known for its incredibly detailed flight sims, ones I have never yet failed to crash in.

Latest trio is the shoot-'em-ups Backlash and Eliminator and Impact, each of which were fairly well received on first, full-price release, and each of which will now set you back just a fiver from your friendly neighbourhood software shop.

Steve Carey

THEY THINK IT'S ALL OVER

but not until you've read Whole Wired World on page 36

LAUNCH into the nineties, a new decade of BARGAINS!!

OFFER 1:

Double Sided 31/2" Disks, Individually Wrapped, 880k 135 tpi, ideal for Amiga, ST, etc. Blue, Pin No. made in Japan, 100% Error Free. 2 for 1 Warranty or money back.

10 x 3.5"	£4.90
25 x 3.5"	£11.95
50 x 3.5"	£20.50
100 x 3.5"	£38.00
250 x 3.5"	£90.00
500 x 3.5"	£169.00
1,000 x 3.5"	£310.00

Incl. labels

**Amiga 512K
upgrade only
£34.95 inc. VAT**

OFFER 2:

Genuine Sony 3.5" Disks Double Sided, made in Japan, sold in Sony outers, probably the best disk in the World!

10 x 3.5"	£5.90
25 x 3.5"	£14.35
50 x 3.5"	£26.48
100 x 3.5"	£49.78
250 x 3.5"	£123.95
500 x 3.5"	£199.50
1,000 x 3.5"	£369.00

Including labels

**DISKS FROM
31p inc. VAT**

OFFER 3:

5.25" Double Sided 48/96 tpi for IBM PC and Clones, etc. 100% Error Free. 2 for 1 warranty or money back.

25 x 5.25"	£6.95
50 x 5.25"	£14.95
100 x 5.25"	£24.95
250 x 5.25"	£59.95
500 x 5.25"	£129.00
1,000 x 5.25"	£200.00

Complete with labels, envelopes & w.p.'s

**Call for printer
ribbon prices**

OFFER 4: High Density Disks.

when only the Very Best will do.
5.25" HD 1.6mb
for IBM, AT, Etc.

10 x 5.25" HD	£4.60	10 x 3.5" HD	£11.00
25 x 5.25" HD	£11.00	25 x 3.5" HD	£27.25
50 x 5.25" HD	£21.50	50 x 3.5" HD	£45.00
100 x 5.25" HD	£42.00	100 x 3.5" HD	£89.50
250 x 5.25" HD	£100.00	250 x 3.5" HD	£169.50
500 x 5.25" HD	£197.00	500 x 3.5" HD	£356.00

Including Labels,
Envelopes & w.p.'s

100% Error Free. 2 for 1 Warranty

OFFER 5: 'Keep your data safe'

Top Quality Anti Static Lockable Disk Boxes, complete with 2 keys. Small or Large Capacity, ideal for Home or Office use!

3.5" x 40 Capacity	£3.95
3.5" x 80 Capacity	£4.50
3.5" x 100 Capacity	£5.50
3.5" x 120 Capacity	£6.50
5.25" x 70 Capacity	£3.95
5.25" x 100 Capacity	£4.95

OFFER 6: Accessories;

Sourced from the world's leading manufacturers, Quality and Price Guaranteed, Buy with Confidence

Amiga/ST dust covers	£1.95
Universal Screen Filter	£14.95
3.5" or 5.25" Cleaning Kit	£1.95
Mousemat	£1.95
200 Labels	£2.99
Roll of 1,000 Labels	£7.50
PC or Amiga Cable	£5.95
Mouse House/Bracket	£2.40
Printer Stand with Tray	£13.99
Printer Stand	£11.95
Mouse/Joystick Extension	£3.95

Four good reasons for choosing Original Media as your Supplier.

1 No Minimum Order

2 Access and Visa accepted

3 Next Day Delivery (Order placed before 10am)

4 Free Helpful Advice

Post add £3.50 per order.
Next Day Delivery £7.95



CORPORATE
EDUCATION &
TRADE ENQUIRIES
WELCOME

THE ORIGINAL
MEDIA
COMPANY LTD.

TEL: (0530) 813591 (MIDNIGHT)
Fax: 0530 813595

Dept NCL
14 ASHBY RD
COALVILLE
LEICESTER
LE6 2LA

1992 The Official Journal of the European Communities Volume 33

Council Directive of 29 May 1990 on the minimum safety and health
requirements for work with display screen equipment

MINIMUM REQUIREMENTS

1. EQUIPMENT

(b) Display Screen - *The screen shall be free of reflective glare and reflections liable to cause discomfort to the user.*

2. ENVIRONMENT

(f) Radiation - *All radiation with the exception of the visible part of the electromagnetic spectrum shall be reduced to negligible levels from the point of view of the protection of workers' safety and health.*

All computer monitors, TVs and other display screens without a filter reflect light bouncing off their surroundings. When presented with a display that shows both reflected image and a computer generated image, eyes have difficulty focusing and will frequently refocus between the two images, resulting in eyestrain. Persistent eyestrain will cause deterioration in eye focusing. Headaches, dizziness, fatigue and stress may also be experienced.

VDU's emit low frequency radiation which may cause leukaemia, miscarriages and impotence in long-term regular users.

VDU's generate electrostatic fields (up to 30k volts), attracting dust particles which become electrically charged and deflect onto the screen and user's face, causing eye irritation and skin disorders such as blotches, dryness, inflammation and spots.

Polaroid CP-Universal II Filter Screens;

- ★ Suppress up to 99% of reflective light
- ★ Provide up to 98% shielding against VLF radiation
- ★ Eliminate static electricity
- ★ Improve contrast more effectively than any other kind of filter
- ★ Fit any screen in the size ranges specified below - there is no need to send exact screen dimensions or make and model of VDU.

Mail order only. Dealer enquiries welcome. Please send completed form with payment to;

Euroware, Riverslea House, Kirkby on Bain, Woodhall Spa, Lincs; LN10 6YN, UK.

	UNIT PRICE	QTY	TOTAL
CP-UNIVERSAL II TO FIT 10"-12" SCREENS	£89.95		
CP-UNIVERSAL II TO FIT 13"15" SCREENS	£89.95		
POLACLEAR* . 15 DOUBLE SACHETS	£10.95		
POLACLEAR* . TWIN 4oz BOTTLE PACK	£10.95		
Postage & Packing			£2.50
Add £7.50 for Courier Delivery (UK)			
TOTAL			

★ polarclear is especially formulated for cleaning optical surfaces and is the only safe cleaner recommended by Polaroid Corporation for Screen Filters. "Constituent Parts" certificate available.

Name

Address

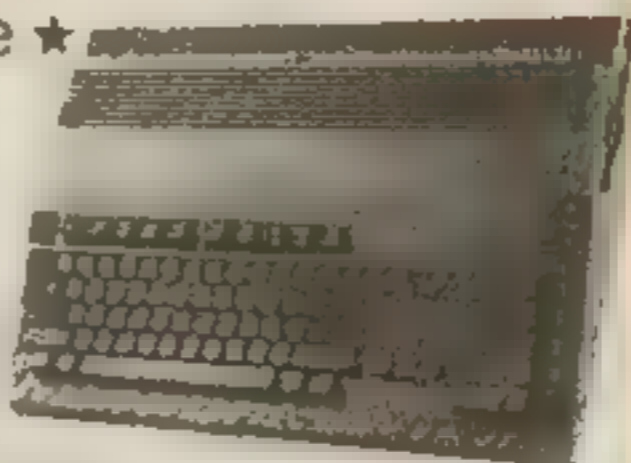
.....

.....

AMIGA DEALS

AMIGA 500 STANDARD PACK

- ★ A500 computer ★ 512k RAM ★ 1Mb disk drive ★
- ★ mouse ★ modulator ★
- ★ power supply ★ operation-manuals ★
- ★ workbench disks, etc. ★



ONLY **£339.95**

BATMAN PLUS PACK

- ★ Amiga as in standard pack
- ★ Batman the Movie
- ★ F18 Interceptor
- ★ New Zealand Story
- ★ Deluxe Paint II
- ★ Megablaster joystick
- ★ Dust cover
- ★ High quality mouse mat
- ★ Wicked ten game pack Inc. Invaders, Pacman, Bouncer.

ALL THIS FOR JUST

£369.95

FLIGHT OF FANTASY PLUS PACK

- ★ Amiga as in standard pack
- ★ F29 Retaliator
- ★ Rainbow Islands
- ★ Escape from Planet of Robot Monster
- ★ Deluxe Paint II
- ★ Megablaster joystick
- ★ Dust cover
- ★ High quality mouse mat
- ★ Wicked ten game pack Inc. Invaders, Pacman, Bouncer.

ALL THIS FOR JUST

£369.95

SCREEN "GEMS" PLUS PACK

- ★ Amiga as in standard pack
- ★ Days of Thunder
- ★ Shadow of the Beast II
- ★ Back to the Future Part II
- ★ Knightbreed
- ★ Deluxe Paint II
- ★ Megablaster joystick
- ★ Dust cover
- ★ High quality mouse mat
- ★ Wicked ten game pack Inc. Invaders, Pacman, Bouncer.

ALL THIS FOR JUST

£369.95

THE ALL NEW... ULTIMATE GAMES PACK

Choose any of the above three packs and add the following:

EXCLUSIVE Dowling Mega Ten Game Pack comprising: RVF Honda, Datastorm, Dungeon Quest, E-Storm, Grand Monster Slam, Kid Gloves, Powerplay, Shufflepuck Cafe, Microprose Soccer, Tower of Babel.

PLUS The Classic Tenstar Pack comprising: Ikari Warriors, Buggy Boy, Wizball, Terrorpods, Barbarian, Thundercats, Art of Chess, Amegas, Insanity Flight, Mercenary.

TOTAL RRP OVER £450

ALL THIS FOR THE UNBEATABLE PRICE OF: £399.95

1/2 MEG UPGRADE BOARD

- ★ Uses latest 4 chip design
- ★ Memory on/off switch
- ★ Option of battery backed clock
- ★ Full 12 month guarantee
- ★ New super low price

£29.95

Clock Version

£39.95

3 1/2" HIGH QUALITY DISKS

- Box of 50 **£19.95**
- Box of 100 **£37.95**
- Roll of 1000 labels **£5.99**

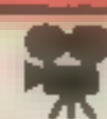
- ★ 100% certified ★ Individually wrapped
- ★ "Made in Japan" media ★ Fully guaranteed

CUMANA CAX 354 DISK DRIVE

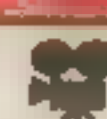
- ★ Latest slimline design
- ★ Quiet, high precision head positioning
- ★ High speed access
- ★ Acknowledged as "the best" (ST Version £69.95)

RRP **£89.95**

£64.95



VIDI-AMIGA SCOOP



At last a complete system enabling you to connect your Amiga computer to any standard video recorder and start frame grabbing!

Features include:

- ★ Perfect freeze frame from any video
- ★ Utility to incorporate real life objects into your favourite design
- ★ Dynamic cut and paste
- ★ Ability to take snapshots in 16 shades live from video
- ★ Multiple frame store
- ★ Plus lots, lots more!!!

What you get..

VIDI-AMIGA (PAL version)

Hardware interface plus softwarerrp £114.95

VIDI-CHROME

Upgrade kit enabling you to digitise stunning full colour pictures in secondsrrp £19.95

E180 VHS/BETA

High quality video tape to get you goingrrp £6.95

ALL THIS FOR THE INCREDIBLE PRICE OF £99.95

COMMODORE 1084S OR PHILIPS 8833

- ★ Stereo colour monitor
- ★ Can be used as T.V. with tuner
- ★ Includes cables

£249.95

A590 HARD DRIVE

- ★ Official Commodore hard drive
- ★ Sockets for 2Mb RAM
- ★ Complete with free software pack
- ★ Built-in P.S.U./cooling fan

£359.95

PHILIPS T.V. TUNER

- ★ Converts your 1084S/8833 into a colour T.V.
- ★ Complete with aerial and plug
- ★ Free 1 years on-site maintenance

£69.95

AMIGA/ST MOUSE

- ★ Replacement mouse by contriver
- ★ Free mousemat
- ★ Free mousehouse
- ★ Full 1 year guarantee

RRP **£34.95**

OUR PRICE **£19.95**

SERIOUS SOFTWARE

SUBJECT	TITLE	RRP	OUR PRICE
ART	Deluxe Paint II	£49.95	£9.95
	Photon Paint II	£79.95	£19.95
WORD PROCESSORS	Kindwords II	£49.95	£29.95
	Protext vers. 5	£149.95	£99.95
	Word Perfect 4.1	£228.85	£169.95
DATABASE	Superbase Personal 2	£99.95	£29.95
	Prodata	£79.95	£59.95
	Superbase Professional	£249.95	£169.95
SPREADSHEET	Maxiplan	£99.95	£29.95
	Superplan	£99.95	£69.95
	VIP Professional	£99.95	£69.95

COMPUTERS

UNITS 48-50 TYNE ROAD, SANDY, BEDS, SG19 1SA

DOWLING

THE
star
COMPUTER PRINTERS



Being Star registered dealers we only sell official UK machines which come with a full 1 year guarantee. Beware of inferior imported products.

PRINTERS

Star LC10 Mono 144/36 cps
Star LC10 II 25% faster version
Star LC10 colour, 7 colours
Star LC24-10 - 24 pin multifont
Star LC24-15 wide carriage version of LC24-10
★ Star FR10 300/76 cps, 31K buffer, 16 NLQ fonts
★ Star FR15 wide carriage version of FR10
★ Star XB24-10 professional 24 pin series, 27K buffer
★ Star XB24-15 wide carriage version of the above with 41K buffer
★ Star LS08 LASER PRINTER 1Mb Ram, 300 x 300 dpi
Star LC10 sheet feeder (auto)
Star LC10 mono ribbons
Star LC10 colour ribbons
Star LC24-10 ribbons
Star LC10 quality dust cover
★ 12 months on-site maintenance

RRP

OUR
PRICE

£229.95	£149.95
£263.35	£169.95
£297.85	£189.95
£343.85	£229.95
£573.85	£389.95
£527.85	£369.95
£688.85	£459.95
£688.85	£459.95
£907.35	£599.95
£2172.35	£1399.95
£74.75	£59.95
£5.95	£3.95
£7.95	£5.95
£7.95	£5.95
£7.95	£5.95

ATARI 520STFM DEALS

ATARI 520STFM STANDARD PACK

★ 520STFM computer ★ 512k RAM ★ mouse ★ 1Mb disk drive ★ ST Basic ★ manuals etc ★

ONLY £239.95

ATARI 520STFM DISCOVERY PACK PLUS

★ Atari 520 as in standard pack ★ outrun ★ Bombjack ★ Carrier Command ★
Space Harrier ★ ST Tour ★ First Basic ★ Neochrome ★ STOS Games Creator ★
★ Discover ST Handbook ★ PLUS ★ Megablaster Joystick ★ dust cover ★ quality mousepad ★

ALL FOR ONLY £259.95

NEW ENHANCED ATARI 520STE DEALS NEW ENHANCED

The new STE computers from Atari are compatible with the STFM but with enhanced features including:
★ stereo sound ★ new blitter chip ★ extra joystick ports ★

520STE 512K RAM	£329.95
520STE 1Mb RAM	£369.95
520STE 2Mb RAM	£439.95
520STE 4Mb RAM	£549.95

FREE £110 HYPERPACK with every 520STE comprising:
Hyperpaintrrp £35.99
Hyperdrawrrp £21.99
Borodinorrp £29.99
Metacomco Basicrrp £24.99
Total rrp £112.96

NEW MUSIC-X JUNIOR

"provides everything that the average amateur musician could possibly require"

AMIGA FORMAT

N.B. Fully compatible with Music X

RRP £79.95 OUR PRICE £49.95

NEW MUSIC-X

Enhanced 1.1 Version
Widely acknowledged as the best music package available. Now with even more enhancements it cannot be beaten

N.B. Be wary of older versions being sold cheaper

RRP £149.95 OUR PRICE £89.95

NEW MIDI INTERFACE

Our own beautifully designed product, colour co-ordinated and designed to sit on your Amiga.

Features: 1 x in, 1 x thru, 2 x out.
Comes complete with midi lead (extras: £2.99)

RRP £29.95 OUR PRICE £19.95

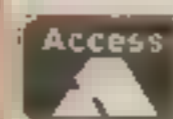
CITIZEN PRINTERS - SCOOP PURCHASE

MODEL	SPECIFICATION	RRP	SCOOP PRICE
CITIZEN 120D+	9 pin 144 cps (draft) 25 cps (NLQ) F/T, 4K buffer, 2 yr guarantee	£228.85	£129.95
★ NEW ★ NEW ★			
CITIZEN 124D	24 pin, 120 cps (draft) 40 cps (NLQ) F/T, 8K buffer, 2 yr guarantee	£320.85	£229.95
CITIZEN ★ SWIFT 9	9 pin, 192 cps (draft) 40 cps (NLQ) F/T, 8K buffer, 2 yr guarantee	£309.35	£189.95
CITIZEN ★ SWIFT 24	24 pin, 192 cps (draft), 64 cps (NLQ) F/T, 8K buffer, 2 yr guarantee	£447.35	£279.95
* colour option	colour upgrade for Swift 9/24	£43.70	£34.95

TELESALES ORDER LINE 0767 681760 (8 lines)



HOW TO ORDER



BY PHONE



Simply call our head office quoting your Access/Visa number on

(0767) 681760

(8 lines)



BY POST

Make cheques, building society drafts or postal orders payable to:

Dowling Computers



DELIVERY (UK Mainland, most areas)

Please add £6 courier delivery for orders over £100, add £2 p&p for orders under.

★★★★★★★★★★★★★★★★

GOLD CLUB SERVICE

- ★ 7 day money back guarantee if not completely satisfied
- ★ 30 day exchange for new policy should a fault occur
- ★ 1 year guarantee giving FREE collection and delivery service should a fault occur
- ★ Exclusive gold card with personal membership number entitling you to special offers
- ★ All this for a nominal £10 per item over £100

PRICE PLEDGE

We know the majority of you prefer to buy from us but are sometimes tempted by smaller companies offering a £1 or so price difference. That is why we have now introduced our

"PRICE PLEDGE"

"WE WILL MATCH ANY PRICE OFFERED ELSEWHERE ON A SAME PRODUCT BASIS"

★ Subject to stock

WHY CHOOSE DOWLING?

- ★ **ESTABLISHED OVER 4 YEARS**
With a growing reputation for "putting the customer first". We intend to satisfy many more customers for years to come
- ★ **TECHNICAL SUPPORT/ON-SITE ENGINEERS**
Employing over 20 specialist staff, we are equipped to deal with the majority of queries
- ★ **FULL TESTING PROCEDURE**
All computer hardware is tested prior to despatch, proving Dowling's commitment to customer care

So choose Dowling and put our reputation to the test!

Evesham Micros

RETAIL SHOWROOMS

63 Bridge Street
Evesham
Worcs WR11 4SF
☎ 0386-765180
fax: 0386-49761
Open Mon-Sat, 9.00 - 5.30

5 Glisson Road
Cambridge CB1 2HA
☎ 0223-323898
fax: 0223-322883
Open Mon-Sat, 9.30 - 8.00
Specialist Education Centre

1762 Pershore Road
Cottrellage
Birmingham B30 3BH
☎ 021-458 4564
fax: 021-433 3825
Open Mon-Sat, 9.00 - 5.30

ALL PRICES INCLUDE VAT AND DELIVERY

Same day despatch whenever possible. Express Courier delivery £5.00 extra.

MAIL ORDER DEPARTMENT

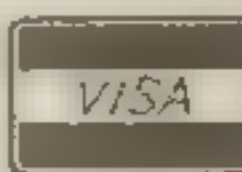
Unit 9 St Richards Rd, Evesham, Worcs WR11 6XJ



Call us now on ☎ 0386-765500

8 lines, Open Mon-Sat, 9.00-5.30. Fax: 0386-765354

Technical support (open Mon-Fri, 9.30-5.30): 0386-40303



Send an Order with Cheque, Postal
Order or ACCESSVISA card details.
Allow 10 days personal cheque clearance.

Government, Education & PLC orders welcome
All products covered by 12 Months Warranty
All goods subject to availability, E. & O.E.



All our ST prices include: mouse etc. plus 5 disks of software including: First Word word processor, 'Neochrome' graphics utility, game and demos.

NEW - 520 STFM DISCOVERY PACK

Good quality, good value package based around the 520STFM computer including 512K RAM, 1Mb Drive and built-in TV modulator. Also supplied is:

STOS Game Creator
Carrier Command
Space Harrier
First BASIC
Outrun
Bomb Jack
Neochrome
Atari ST Tour
plus 'Discovering your Atari ST' Book

£259.00

Including VAT
and delivery

1040 STE PROFESSIONAL PACK

Excellent starter package, including the very latest 1040STE machine with 1Mb RAM, 1Mb Drive, plus the following extras:

Kuma Wordprocessor
Kuma Database
Kuma Spreadsheet
Kuma Business Graphics
STAC Adventure Creator
Hyper Paint (STE version)
First BASIC
'Prince' game

£429.00

Including VAT
and delivery

NEW! 520 STE TURBO PACK

Features the latest 520STE with 1Mb drive, joystick, mouse, user guide, 5 disks of public domain software, plus a high quality selection of entertainment and creativity software, including:

Indiana Jones & the Last Crusade
Impossible Mission II
Human Killing Machine
Dragons Breath
Hyper Paint 2 (STE version)
Music Maker 2 (STE version)
Blood Money
Super Cycle
Out Run
Anarchy
First BASIC
STOS

£339.00

Inc. VAT & Delivery

520STE RAM upgrade to 1Mb, includes 2x256K SIMMS modules	£40.00
520/1040STE RAM upgrade to 2Mb, includes 2x1Mb SIMMS modules	£119.00
520/1040STE RAM upgrade to 4Mb, includes 4x1Mb SIMMS modules	£235.00
520STFM 1Mb Drive Upgrade Kit with full fitting instructions	£54.95
520STFM 1Mb Memory Upgrade Kit, requires soldering	£59.00
Mega ST1 with monochrome monitor	£599.00
Mega ST2 with monochrome monitor	£849.00
Mega ST4 with monochrome monitor	£1099.00
SM124 monochrome monitor	£99.00
SC1224 colour monitor	£279.00
Philips CM8833 14" colour monitor (stereo sound) c/w ST cable	£259.00
Vidi-ST 16-tone video frame grabber inc. digitising software	£89.00
NeoDesk V3 Desktop replacement	£29.95

Amstrad PC Range

All Amstrad Products include 12 Months On-Site Maintenance

'LOCOSCRIPT PC'
FREE with any PC1640!

'LOTUS 1-2-3 v2.01'
FREE with any PC2086!

**All PC models include
'Top 10 Solid Gold'
Games Package!**

**CREATE YOUR OWN HARD
DISK CONFIGURATION FOR
ANY 1512/1640/2086 MODEL!**

Using a Western Digital Filecard, which includes XTree and SpeedRead software, we can upgrade the PC for you before despatch. Using the 'SD' column of the price table, simply add £225.00 inc. VAT for a 21Mb configuration, £239.00 for a 32Mb configuration, or £279.00 for a 41Mb configuration.

	SD	DD	AMS H.D.
MONO			
1640	390.43 449.00	477.39 549.00	651.30 749.00
CGA COLOUR			
1640	477.39 549.00	564.35 649.00	738.26 849.00
EGA (ECD)			
1640	564.35 649.00	651.30 749.00	825.22 949.00
2086 MONO			
2086	433.91 499.00	520.87 599.00	694.78 799.00
2086 CD			
2086	564.35 649.00	651.30 749.00	825.22 949.00
2086 12" HRCD			
2086	564.35 649.00	651.30 749.00	825.22 949.00
2086 14" HRCD			
2086	607.83 699.00	694.78 799.00	868.70 999.00

upgrades / accessories

PC1512 memory upgrade to 640K	£29.95	Enhancer 101 replacement keyboard	£74.95
Maths Co-processor 8087-2	£109.95	3.5" drive (720K) for SD models	£79.95
NEC V30 (8086 replacement)	£24.95	PC2000 series compatible	
Archive XL 40Mb Ext. tape streamer	£379.00	5.25" (360K) external drive	£84.95
Amstrad Modem Card V21/23	£99.00	Genius GM6000 Mouse package	£34.95
Communicate Fax Card SR	£199.00	Konix Joystick & Controller Card	£28.95

Low price External 3.5" Floppy Drive (720K), suits any Amstrad PC 1512, 1640 inc. Double Drive and Hard Disk models, uses no expansion slots. £99.95

Amstrad Laptop Portables

prices in brackets are excluding VAT.

N.B. Amstrad ALT Portables Do Not include On-Site Maintenance

PPC512S	(£373.04) £429.00	PPC640D	(£546.96) £629.00
PPC512D	(£433.91) £499.00	ALT286	(£1390.43) £1599.00
PPC640S	(£477.39) £549.00	ALT386sx	(£1738.26) £1999.00



AMIGA A500

512K

**MEMORY
UPGRADE**

ONLY £39.95 inc VAT & delivery

512K RAM/CLOCK EXPANSION FEATURES:

- ☆ Direct replacement for the A501 expansion
- ☆ Convenient On / Off Memory Switch
- ☆ Auto-recharging battery backed Real-time Clock
- ☆ Compact unit size : Ultra-neat design
- ☆ Uses only 4 D-RAMs for High Reliability
- ☆ Low power consumption

RAM expansion without clock only £34.95

Amiga & ST 3.5" Drives

- ★ Very Quiet
- ★ Slimline Styling
- ★ Fully Compatible
- ★ Top quality Teac/Citizen drive mechanism
- ★ On/Off switch for Amiga
- ★ External plug-in PSU for ST
- ★ Throughport for Amiga
- ★ 1Mb unformatted capacity

Fully compatible, high quality 3.5" external drives for the ST and Amiga

Amiga version only £59.95

Atari ST version only £64.95

Prices include VAT & delivery

Western Digital Filecards

Upgrading your PC to hard disk? Look no further, we offer the best prices on top quality filecards, with ultra-competitive speed ratings. Thorough documentation supplied, low power consumption, with free XTree file management software and Speedread. For Amstrad PC users we supply filecards tested and formatted, with our simple software installation procedure. The best packages available!

21MB...£225.00 32MB...£239.00 41MB...£279.00

3 1/2" disks

in plastic case £11.95
22.95 in 10 cap case £29.95
fully guaranteed double sided media

5 1/4" disks

50 cap box £18.95
100 cap box £20.95
fully guaranteed double sided media

PRINTERS

All prices include VAT, delivery and cable.

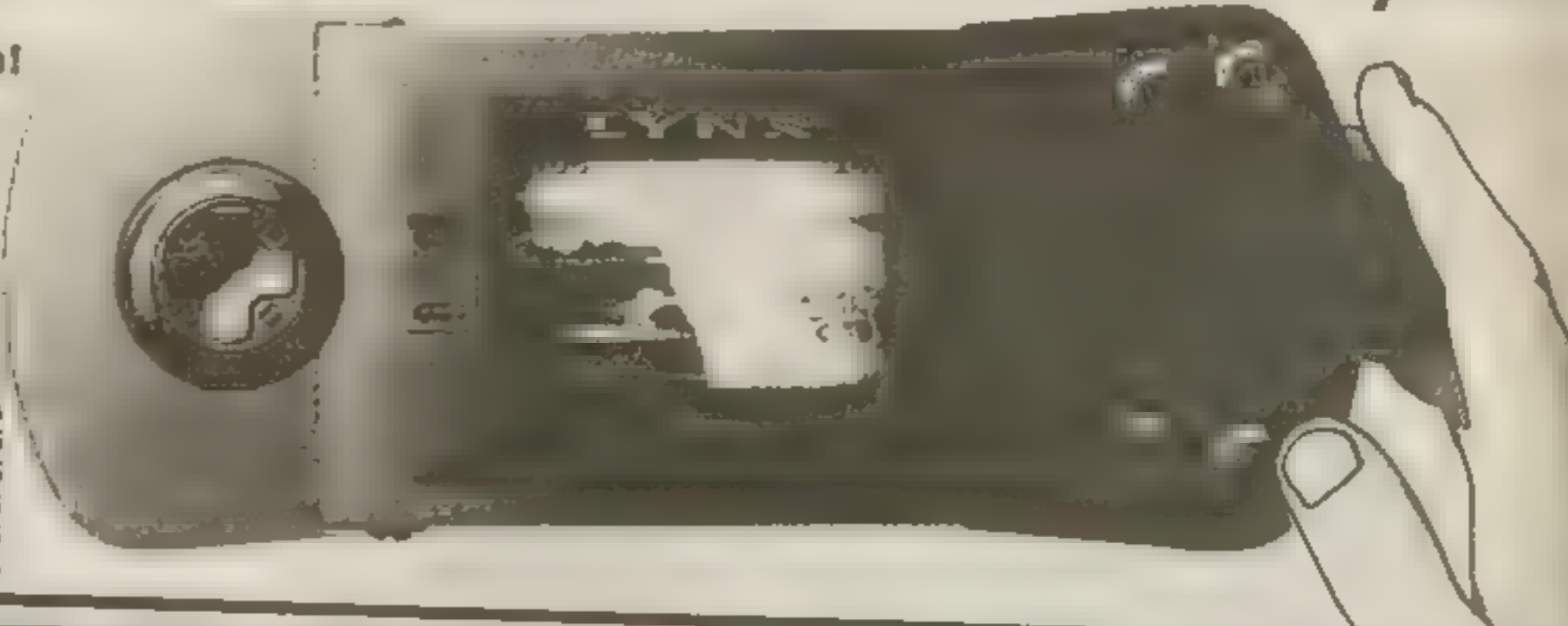


EVESHAM MICROS SPECIAL OFFER
ALL STAR PRINTERS INCLUDE 12 MONTHS ON-SITE MAINTENANCE!

Star LC24-10 feature-packed multifont 24 pin printer, amazing low price	£239.00
Star LC10 best-selling 144/36cps printer, 4 NLQ fonts	£159.00
Star LC10 7-colour version of above printer	£209.00
Star LC15 wide carriage version of LC10	£329.00
Star LC24-15 wide carriage version of LC24-10	£409.00
Star FR-10 Professional 9pin 300/76 cps, 31K buffer, 16 NLQ fonts, EE-PROM configuration memory and 12 months on-site maintenance	£399.00
Star FR-15 9pin as FR10, wide carriage version	£499.00
Star XB24-10 Professional 24pin: 27K buffer, 4 SLO & 25 LQ fonts with EE-PROM configuration memory and 12 months on-site maintenance	£499.00
Star XB24-15 wide carriage version of XB24-10, with 41K buffer	£649.00
Star Colour Upgrade Kit for XB or FR series printers (please state which)	£39.00
Hewlett Packard Deskjet Plus 300dpi Inkjet printer - special offer!	£399.00
NEC P2+ budget 24pin, special low price!	£239.00
Panasonic KXP1180 super 9pin with over 3400 typestyles, 11" carriage	£179.00
Panasonic KXP1124 good quality 11" multifont 24pin printer	£269.00
Panasonic KXP1624 wide carriage version KXP1124	£399.00
Epson LX400 popular 10" 180/25 cps	£159.00
Epson LQ550 good 24pin printer 150/50 cps	£349.00
Mannesmann Tally MT-81 130/24 cps	£149.00

- Fantastic hand-held portable 16-bit video games machine
- Excellent built-in high definition, full colour LCD display
- Capable of displaying up to 16 colours out of a possible 4096
- 32-bit audio processor produces superb 4-Channel sound
- Left or right hand play easily achieved with screen flip option!
- Multiplayer Competitions possible using COMLYNX cable (supplied) to connect with other Atari Lynx systems
- Free California Games (multiplayer) game card supplied!
- Uses 6 x AA batteries (not supplied) or AC adapter (supplied)

ATARI Lynx Portable Games System



ONLY £159.00 including VAT and delivery

- Game Cards now available:**
- Blue Lightning £19.95
 - Gates of Zendocon £19.95
 - Electro Cop £19.95
 - Chips Challenge £19.95
 - Gauntlet III £22.95
 - Rampage £22.95



All A500 Packages also include the following:

Amiga 500 512K Screen Gems pack including 5 software titles and TV modulator	£379.00
Amiga 500 512K Flight of Fantasy pack includes 4 software titles and TV modulator	£379.00
Amiga 500 512K Batpack includes 4 software titles and TV modulator	£379.00
Amiga 500 1Mb (Batpack or F.O.F. Pack or Screen Gems pack) upgraded using our 512K RAM/Clock	£415.00
Amiga 500 (Batpack or F.O.F. Pack or Screen Gems pack) with Drive includes our 3 1/2" External Drive	£435.00
Amiga 500 1Mb (Batpack or F.O.F. Pack or Screen Gems pack) with Drive features our 512K RAM/Clock Upgrade plus 2nd 3 1/2" External Drive	£470.00
External 5.25" 40/80 track switchable drive	£99.00
MIDI interface	£19.95
Video-Amiga video digitiser package	£95.00
Kickstart 1.3 Upgrade pack	£29.95
Min/Gen Genlock Adapter	£95.00
Philips CM8833 colour monitor inc. cable	£259.00
Contriver Hi-Res replacement Mouse pack	£22.95
Amiga 500 dust cover	£4.95

CBM A590 HARD DRIVE

Good quality 20Mb Hard Disk from Commodore, including its own PSU. Features sockets for up to 2Mb FAST RAM expansion (see below). 80ms Access time, with up to 2.4Mb/sec transfer rate. Will autoboot when used with Kickstart 1.3. Has built-in cooling fan.

A590 (20Mb) only £379.00
40Mb version only £499.00

- A590 512K RAM Upgrade kit £36.00
- A590 1Mb RAM Upgrade £70.00
- A590 2Mb RAM Upgrade kit £135.00
- RAM upgrades fitted free when bought with A590.

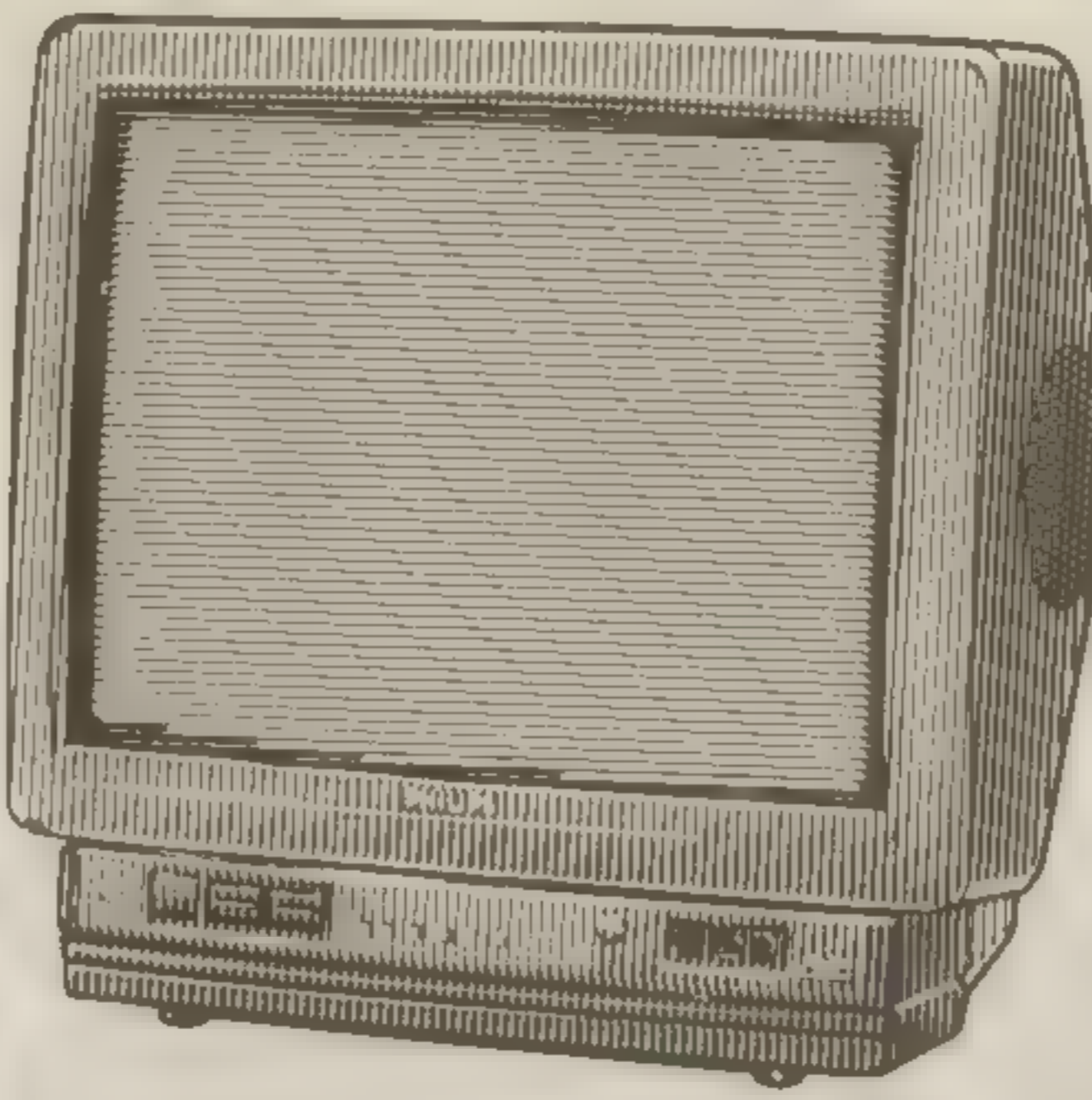
PHILIPS 15" FST TV/Monitor (MODEL 2530)

With its dedicated monitor input, this model combines the advantages of a high quality medium resolution monitor with the convenience of remote control Teletext TV - at an excellent low price!

- ✓ Suits ST or Amiga (cable supplied)
- ✓ Teletext facilities; on screen graphics
- ✓ Full infra-red remote control
- ✓ SCART Input/Output Connector
- ✓ Audio/Composite Video inputs
- ✓ 60 TV tuner presets
- ✓ Headphone private listening jack
- ✓ External aerial input (loop supplied)

£269.00

Includes VAT, delivery and computer connection lead



ATARI ABC-286

FREE with all ABC-286 machines: Logotron '8-in-1 Professional' Inc. W/Processor, Database, Spreadsheet, Graphics, etc.

- PLUS 12 MONTHS ON-SITE MAINTENANCE**
- ☆ 80286 Processor with 8Mhz clock speed
- ☆ 640K RAM standard, expandable to 1Mb
- ☆ 3 AT/XT compatible Expansion slots
- ☆ Disk controller supports 2 floppy & 2 hard drives
- ☆ One 3.5" (1.44Mb) floppy drive and a 30Mb hard disk drive fitted as standard
- ☆ Socket for 80287-8 Maths Co-Processor
- ☆ Video graphics adapter supports EGA, CGA, MDA and Hercules, with digital video port
- ☆ 102-key DIN spec. AT-Protocol keyboard
- ☆ Supplied with MS-DOS 3.3 and GW-BASIC

- ABC286 SD/30Mb base unit . £803.85**
- ABC286 SD/30Mb with Mono Monitor £861.35**
- ABC286 SD/30Mb with EGA Monitor £976.35**
- Prices include VAT/Delivery and 12 months On-Site Maintenance**
- Optional 5.25" 1.2Mb Internally fitted floppy drive available £119.00**

olivetti DM100S



Top value, high performing 9-pin dot matrix printer

- 200cps draft, 30cps NLQ print speed
- Pica, Elite and Condensed printing
- Standard Centronics Parallel interface
- Friction and Tractor feed
- Optional auto cut sheet feeder available

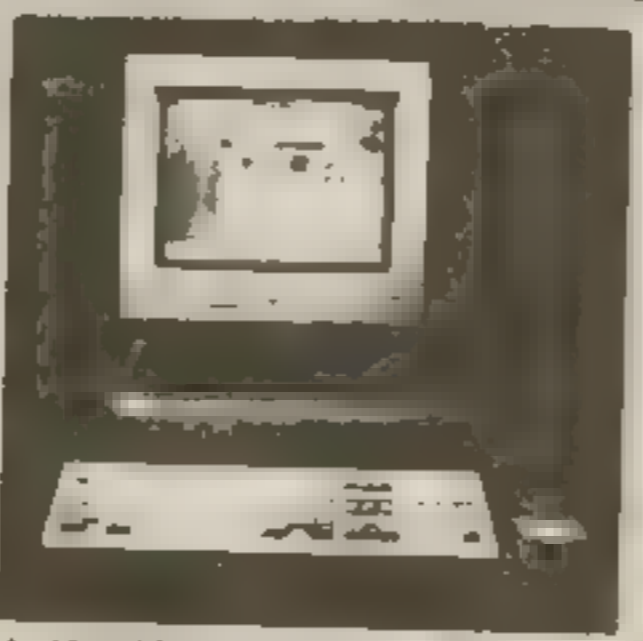
ONLY £129.95

Cut sheet feeder available for only £79.95
Prices include VAT, delivery and 12 months on-site maintenance!

olivetti PCS 86/286

FREE With All Models

- ✓ 12 Months On-Site Maintenance
- ✓ PS2-compatible Mouse with software
- ✓ Logotron 'Eight-In-One' Integrated Package
- ✓ Top 10 Solid Gold Games package



FREE WITH EVERY PCS286: OLIVETTI DM100S 9-PIN PRINTER!
or, if you prefer, £129.95 inc.VAT allowance on another printer of your choice.

- ◆ 101/102 key AT-layout PS/2 compatible keyboard (Mini-DIN)
- ◆ 1 x RS232 Serial interface and 1 x Centronics Parallel interface
- ◆ VGA compatible (OVC) display controller fitted standard
- ◆ VGA monitors: 14" Colour / 12" Mono. (dot pitch 0.39mm)
- ◆ Socket for Optional Maths Co-Processor
- ◆ Hard Drive versions: 20Mb (27ms access time) / 40Mb (29ms)

	SD	DD	SD 20MB	SD 40MB
PCS86 MONO	549.00 631.35	649.00 748.35	849.00 976.35	N/A N/A
PCS86 COLOUR	699.00 803.85	799.00 918.85	999.00 1148.85	N/A N/A
PCS286 MONO	N/A N/A	949.00 1091.35	1049.00 1206.35	1149.00 1321.35
PCS286 COLOUR	N/A N/A	1099.00 1263.85	1199.00 1378.85	1299.00 1493.85

Logotron 'Eight-In-One' package includes Wordprocessor, Database, Spreadsheet, Graphics etc. 'Top 10 Solid Gold' games pack includes Arcade, Adventure, Creativity, Simulation & Strategy titles.

PCS 86

- ◆ NEC-V30 microprocessor 10Mhz clock speed, 0 wait states
- ◆ 640K RAM standard, upgradeable to 2.5Mb on motherboard
- ◆ Single or Twin 3.5" floppy drives with 720K formatted capacity
- ◆ 3 Full size XT-compatible 8-bit expansion slots

PCS 286

- ◆ Intel 80286 microprocessor 12Mhz clock speed, 1 wait states
- ◆ 1Mb RAM standard, upgradeable to 4Mb on motherboard
- ◆ Single or Twin 3.5" floppy drives with 1.44Mb formatted capacity
- ◆ 3 Full size expansion slots; 1 x 8bit and 2 x 16bit (XT/AT style)

ACCESSORIES

- 5.25" 1.2Mb/360K drive with controller £129.95
- PCS286 2Mb RAM Upgrade Kit £119.00
- PCS286 4Mb RAM Upgrade Kit £235.00

WHOLE WIRED WORLD

A new regular trip around the world with Steve Gold

CODEHEAD RELEASES CODEKEYS

Codehead Software of Los Angeles has released *Codekeys*, a nifty macro key designer for the Atari ST. Macros are sequences of key presses and mouse actions which can be played back by simply pressing a key or combination of keys.

Although there are other macro packages around for the ST, Codehead claims that *Codekeys* is the best, owing to its relative simplicity - it consists of an auto-folder program and an accessory.

As a result, the \$39.95 product can be invoked, for recording or playback, from almost anywhere within GEM or TOS, on the ST or TT in all screen resolutions or modes. Full word processing facilities (cut, paste, edit etc) are available for macro strings, along with a host of other features. Codehead charges \$5 for postage to the UK and accepts major credit cards.

Contact: Codehead Software, PO Box 74090, LA, CA 90004, USA. Tel: 0101 213 386 5735. Fax 0101 213 5789.

EDHAK UNVEILED

Need a pop-up (TSR) text-editor for your Atari ST? Keep an eye out for *Edhak* version 2, a shareware package that provides many of the features of Bordland's *Sidekick* for the PC, but for the Atari ST environment.

The package costs \$12 to register from author Craig Harvey, and slips neatly into 77K of system memory when using the default 10K text editor buffer.

The latest version of *Edhak* is a great improvement on earlier versions and is getting some rave comments on the US on-line systems. The package can be downloaded from CompuServe and Genie's Atari ST areas, as well as from Craig's BBS, Clear Thinking, in the US. You can register and obtain a copy for just \$12 by mail.

Contact Craig Harvey, PO Box 715, Ann Arbor, MI 48105 USA.

Email: CompuServe - 73047, 600.

Internet: 73047, 600 @

CompuServe.com.

BBS: 0101 313 761 2444.

APPLE PUTS HOLD ON SYSTEM 7

It's all go over at Apple in preparation for the new Macs announcement this coming October 15. Apple executives have placed a hold on shipment of the System 7 software until the spring of next year (V6.0.6 will ship with the new Macs, say insiders) but, as compensation, *HyperCard* 2 will ship at last this November.

Why the delay on System 7? Squeezing the software down to below the 2Mb mark on the Mac is causing problems, according to messages posted on the Mac user area of the American PeopleLink service in the US.

The good news about *HyperCard* 2 is tempered by the fact that the version to come bundled with the Mac from this November onwards will be a run-time version only. Previous versions of *HyperCard* included the development programs - now the development modules to version 2 will be sold by Claris, which will handle *HyperCard* from now on.

IBM/MICROSOFT SHUFFLE

IBM and Microsoft are reported to be shuffling their arrangements regarding OS/2. Officially, both companies have announced the extension of their software licensing agreement.

Insiders report that IBM is less than pleased at the sales success of Windows 3 and, as a result, has changed the way both companies work with OS/2. IBM will handle most development work on OS/2, leaving Microsoft to be responsible for Windows and DOS development.

The good news is that a new version of OS/2 - version 1.3? - is in the offing. This will be capable of being ported to other environments such as Motorola

microprocessor-based and Unix systems.

Version 1.3 of OS/2 is reported to need just 2Mb of RAM and be faster than earlier versions. ■ so, that perhaps explains why IBM is shouldering responsibility for OS/2 development - Microsoft would hardly need a competitor to Windows 3 would it?

TEXAS GETS HEAVY

Texas Instruments has given notice to Japanese semi conductor manufacturers that it wants a ten per cent royalty on DRAM chip sales. The announcement stems from last year when TI succeeded in its 30-year attempt to get a Japanese patent on the DRAM chip. If the Japanese companies shell out, TI could rake in more than \$100 million a year in royalties.

But don't expect the Japs to give up without a fight. Some companies claim that a 10 per cent royalty figure is five times the market norm.

SHAREWARE GETS ROLLING

Computer Publications of Arvada in Colorado has got the first edition of its *Shareware Connection* newsletter out of the door. The \$14 a year monthly newsletter aims to keep the Atari ST community up to date on what's happening on the shareware and public domain software front.

Unlike some of the smaller competition, the newsletter also supplies copies of the programs it reviews. A subscription to the newsletter with the disk service costs \$28 for six months, or \$48 for a year. That's not bad value at all.

Contact: The Shareware Connection, Computer Publications Unlimited, PO Box 2224, Arvada, Colorado 80001-

2224, United States. Tel: 0101-301-423-6805.

ROW AMONG THE 'ATARI ELITE'

A user group known as the Atari Elite, which runs various user groups and the like, and which has been criticised for allegedly promoting software piracy through its software rental schemes, has issued a solicitor's letter to more than 30 people, publishers and companies in the US Atari ST community, threatening legal action for libel.

The Atari Elite is a Pittsburgh, Pennsylvania, Atari club that was named in numbers of allegations of piracy related activity affecting the Pace Atari show, held in April of this year.

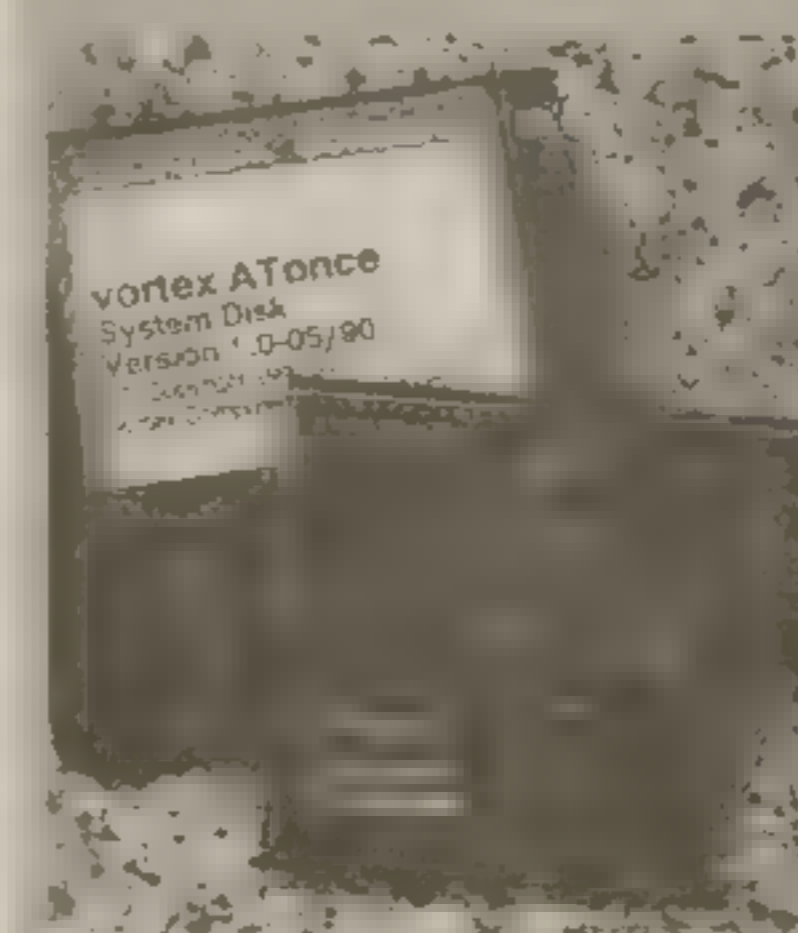
According to Ron Kovacs' Z-Net on-line newsletter, the show had the lowest attendance of any nationally promoted Atari show to date, and many observers attributed both the failure of the show, and what appeared to them to be widespread open piracy, to the Elite group.

Following the show, many on-line newsletters published reports on the matter. It now seems that the Atari Elite has hit back, asking for a public apology for the comments, or even taking legal action.

Although legal skirmishes like this go on all the time in the US computer industry, this one could be serious for the US Atari ST community, as Z-Net reports that Atari is considering cancelling attendance at future Atari-specific computer shows, so as to avoid getting itself and its officers involved in any wrangles with the Atari Elite and other user groups.

Let's hope that Atari US does not take this step, as it will be a sad day for the ST user community if it does. ■

PC EMULATOR FROM VORTEX



Vortex Computer Systems of Flein bei Heilbronn in West Germany has released ATOnce, a bolt-on PCB that turns an Atari ST or Mega ST into an AT compatible with a clock speed of 8MHz. The card consists of a surface mounted 80286 microprocessor and Vortex's custom back-up circuitry.

When run on a 1Mb ST, the ATOnce card gives up to 704K of DOS-accessible Ram. On STs with more than 1Mb of RAM, the package allocates the extra memory as either extended or expanded.

Up to 24 GEM/DOS-accessible disk partitions are supported by the Vortex software, which is supplied on disk. DOS can be booted straight from disk, by-passing the ST boot-up cycle completely if required.

To install the card you have to solder a socket on top of the ST's 68000 microprocessor. On the 1040 STE and Mega ST series, a plug-in adapter can be used instead. The entire system costs DM498 for the card and software, plus between DM 98 and 128 for the plug-in adapter if required.

Contact: Vortex Computer Systems, 51-53 Falterstrasse, D-7101 Flein bei Heilbronn, West Germany, Tel: 01049-7131-50880

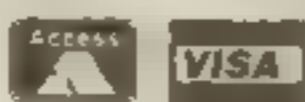
You can get ATOnce in this country from Full Circle Technologies on 0622 077173 for £179. The firm also offers a 14-day trial period.



ONCE BYTTEN

39 Marling Way
Gravesend
Kent DA12 4DW
Tel: 0474 567964 Fax: 0474 537172
Mon-Sat 10am-8pm Callers by Appointment
DRIVE A FLOPPY BARGAIN!!

PROFEX



A Superb 3.5" 880k DSDD Floppy Drive for all Amigas. With disable switch & pass through.
Our Price only £57.50 inc. VAT PLUS you can order X-Copy II for only £10.00 extra.

LOCOSCRIPT PC (5 ONLY) RRP	£129	£79.00	DESKPRESS PC	£225.00
MUSIC - X - AMIGA		£79.00	MONITOR STAND 14"	£7.99
PC MOUSE M2+		£24.95	MONITOR FILTER 14"	£7.99
X-COPY II - AMIGA		£19.95	3.5" 880k Drive (Amiga)	£57.50
X-Copy II + Disc Drive		£67.50	M/Botics 2Mb RAM (2000)	£259.00
40 Capacity 3.5" Locking Disc Box		£4.50	80 Capacity	£5.50
40 Cap. box + 40 3.5" DSDD Discs		£17.99	80 cap. box + 80 Discs	£34.50

(Similar bundles available with High Density or 5.25", phone for prices)

PROFEX CM14S PLUS

This superb monitor for Amigas & Atari ST is built in Italy to West German specification. It has stereo speakers built-in and a Tilt & Swivel base. Resolution figures are the same as Commodore 1084S/Philips 8833. The price is only £199.95 including VAT & Amiga lead.

PROFEX PC22

A 286 12Mhz AT Compatible with 20Mb Hard Disc and including Mono Monitor, Parallel and serial ports, MS-DOS 3.30, and a 102 key keyboard. Complete system £699 + VAT. (There is a full range of Profex PC's from 286 to 486. Please ask for details.)

SECONDHAND

We are constantly taking good used equipment in part-exchange.
All secondhand equipment has been fully checked and is offered with a three month guarantee unless otherwise stated.

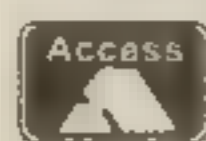
Amiga B2000	£550.00	XT Bridgeboard	£150.00
Amiga 1000 512k	£250.00	Hand Scanner PC	£99.00
Commodore 1901 Monitor	£99.00	Commodore MPS803	£69.00
Seikosha SP180VC for CBM	£79.90	Commodore 64/C2N	£79.00
Palm Organiser XP	£59.00	Kodak Diconix	£179.00
Epson LX800 printer	£99.00	IBM 30Mb HDD	£125.00

PLEASE NOTE:

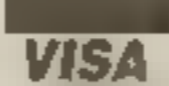
All the above prices (New & Secondhand) include VAT at 15%
Carriage is extra: All items in this advert - £2.50 unless otherwise stated.
No maximum quantity per order, the more you buy the cheaper it is.
Courier delivery available. All secondhand items please ring for carriage quote.

Quality Disks
JAPANESE/EUROPEAN
MADE TOP BRAND BULK

3 1/2" DSDD
39p



inc VAT and labels
ANY QUANTITY



Disk Boxes - 3.5" 80 capacity £4.50,
40 capacity £3.99 inc.

Post and packing £3.95 per order (£8.00 overnight)

All disks are purchased direct from a major manufacturer and are 100% guaranteed.

MARKETace LTD

20 Stapledon Road, Orton Southgate,
Peterborough PE2 0TD

Tel: (0733) 371799 (24 hours)

Fax: (0733) 370722

Callers welcome Mon-Fri 9-5. Sat. 10-1.

AMIGA ATARI & PC SOFTWARE

The Tipster

This **HORSE RACING** software was used to select the 100/1 NORTONS COIN outsider in this years GOLD CUP. Data for this program requires the **RACING POST**. An **INTERNATIONAL** version is available for **AMIGA** & **ATARI** computers using the **DAILY MIRROR** for data on UK races.

£29.95

The punter

Let your computer **WIN THE POOLS** for you with our latest software. We have used the same sums that the **TIPSTER** proves can beat the odds to give you a better chance with on any pools coupon. The **AUSTRALIAN** version is included on the disk which also contains the **LATEST ENGLISH** leagues.

£29.95

The Dogs

This **GREYHOUND RACING** program is available on the **AMIGA** and **ATARI ST**. Using data from either the **DAILY MIRROR** or **RACING POST**, you can rate races over **HURDLES** and the **FLAT**. Very easy to use, this program will rate 5 races in under 1/2 an hour.

£29.95

★ ★ PART TIME PROGRAMMERS REQUIRED ★ ★
If you have games, utilities or business programs written on the Amiga, Atari ST or PC, please send details and a demo.

TAM Marketing

7 GD UNITS, Marsh Barton
Trading Estate, Exeter, Devon
SALES: 0392 427186
ENQUIRIES: 0392 215485

PLEASE QUOTE

N.C.E.

SPECIAL OFFERS

Flight Of Fantasy	£349.99	Mus. 8 (uk)	£69.99
Nec Disk Drive	£69.99	PageSetter II	£49.99
512k Ram Expansion	£32.99	Amos Creator	£34.99
1.5MB Expansions	£169.99	F19 Stealth Fighter	£16.99

SOFTWARE PREVIEW

ARE YOU FED UP OF BUYING

games that don't live up to their name?

Want an ART package, but not sure which one?

Need a Database, but don't understand the jargonous write ups?

Wouldn't it be better if you could give the programmes
a test run before you buy....? - Don't Panic -

Here at Software Madness we run an exclusive club for Amiga owners.

NOW you can preview (hire) programmes before you buy! Joining our exclusive club will not only allow you to preview software, it will also qualify you to make huge savings on all software & hardware.

If it is available for the Amiga we stock it.

Other benefits include:

Prices that cannot be beaten!

All Amiga products can be supplied!

Newsletters monthly access to a huge PD library!

And a fast and friendly customer service department!

SOFTWARE MADNESS

16 BUTLIN ROAD, LUTON, BEDS, LU1 1LD

For more information contact Steve on Luton. 0582 483640



Probably the largest and most dynamic software development house in Scotland, is currently seeking

new and experienced
PROGRAMMERS
GRAPHIC ARTISTS
MUSICIANS

For all major European and American Computer Formats.

- ★ Major titles offered
- ★ Excellent rates of remuneration
- ★ Full technical and equipment backup.
- ★ Very flexible working hours and environment.

CONTACT : Martin Kane,
ICE Software,
244 Bath Street,
Glasgow G2 4JW
TEL : 041-332-9007
FAX : 041-332-8986



**DR.GONZO -
MAN, MYTH OR
MEGASTAR?**

Gonzo Games is a brand new company with new ideas and a different approach. We like to think we've got a sense of humour, and we want people to remember what games always used to be about - **HAVING FUN!** We currently need an experienced programmer to handle **PC Conversions** of our original games. As well as having a deep and meaningful knowledge of 8086 machine code the successful applicant will become part of a small but select team working in central London.

If you think you can compete with the very best in the games industry and you want to gain a unique insight into what it's like to work for a fast growing publishing house, give **Steve Howard** a call for an appointment. Or write enclosing a full C.V.

GONZO GAMES
SOUTH BANK TECHNOPARK
90 LONDON ROAD LONDON SE1 6LN
071 928 6323 FAX: 071 928 6265

**DO YOU WANT
TO BECOME A
PROGRAMMER?**



Established 1968

**Move across to the rewarding
world of IT.**

We have a series of short and long term training programmers in Computing and Information Processing.

- * C & G 424/425 Certificate in applications programming.
- * C & G 418 Computer Programming & Information Processing.
- * Evening courses in DBASE, WP, Spreadsheet Analysis.
- * Evening courses in Pascal, BASIC & COBOL.

**Contact Central London College on
01-580 4596.**

TRAINING FOR YOUR FUTURE

**Calling all PROGRAMMERS,
ARTISTS, MUSICIANS AND
GAMES DESIGNERS working
in the leisure software industry**

It's time you joined the organisation that's working to build a more professional industry for you and your fellow software authors: a non-profit making body founded and run by people like you. Together we can share experiences and protect our interests as a group. Join now and make a positive statement that YOU are a professional. Among the benefits of membership, you can look forward to:

- * A 'standard' contract for you to adapt
- * A guide to our contract (in layman's English)
- * A quarterly newsletter 'BLIT'
- * Helpline support service
- * Developers' conference (The second 1990 conference is in October)
- * Discounts on hardware and software
- * Social events (like Go-Karting) where members can meet

All this and more for just £50.00 per year - the price of a couple of games. For further details either phone the **SSA helpline** on 0867-35485 or send a large SAE to:

**The Society of
Software Authors**
P.O. Box 598,
Bournemouth, BH6 3YB.

SSA
DEVELOPING A FUTURE

OPENING TIME

Some of you, my staunch, upstanding and erudite readers, will have noticed that the centrefold has not actually been in the centre of the magazine since its conception. There is a reason for this. It is a simple reason which holds a dark secret.

I don't want Unix users to find it. As you will know, users of the Unix operating system are deeply logical people, if they read that a section of a magazine is to be called 'The Centrefold', they will turn to that area of the magazine. Logic then demands that if the section isn't where its name suggests it has never existed, and they don't bother looking any further.

So far, this strategy seems to have worked well as I have received no correspondence beginning, "Sir, I am a long time Unix user..."

The dark secret behind this is that my beloved springer spaniel, Capablanca, is being held hostage by the OS/2 Hard Club of Europe. If any Unix-based letters are printed in The Centrefold, Capa will be de-capita and his tail used as an ear adornment. I am desolate and hope to hell that the rest of my pets are safe from such violent organisations as 'Hell's Angels for CP/M', 'the MS-DOS Mafia', 'TOS Terrorists for a Free Desktop', or even 'Amiga DOS Animals'.

I hope that you will bear with me and not let the secret out to any Unix users.

This week's Centrefold is not only not in the middle, it isn't even two pages long. That's because, as you may have noticed, we are now 100. The century is up. So to celebrate we present some of the highlights of the last two years (that is, the first two years) of *Express* stories.

Cheers, now get out of this column and take your dirty boots with you.

THE TOP 100!

It's Issue 100 and that calls for a little nostalgia. So here we have a very Centrefold choice of the best of *Express*. What you will find in these two pages are bits and bobs from the wierd side of computing life since 1988. Due to lack of space some issues have had to be left out. What's your favourite *Express* story?

8 page sampler Sept 1988
New Sinclair PC unveiled.

Nintendo admits that games consoles cannot compete with the likes of the ST and Amiga.

First issue free with ACE Dec 1988

"For discerning Amiga and PC owners everywhere (sorry ST owners, your computer couldn't handle the graphics!) Advert from Martech for *Phantom Fighter*.

ISSUE 1 NOV 12 1988
Amstrad PC2000s appear in this country. From £749 to £1,249.

"Konix could easily be the next Amstrad, I honestly believe that. What's more, they'll be bigger and better than Amstrad." Bruce Everiss then of Codemasters.

"You want my view on the future of the market? You ain't having **** all. I know **** all about the market and there's no way **** way I'd tell you." An unnamed Amstrad senior bod.

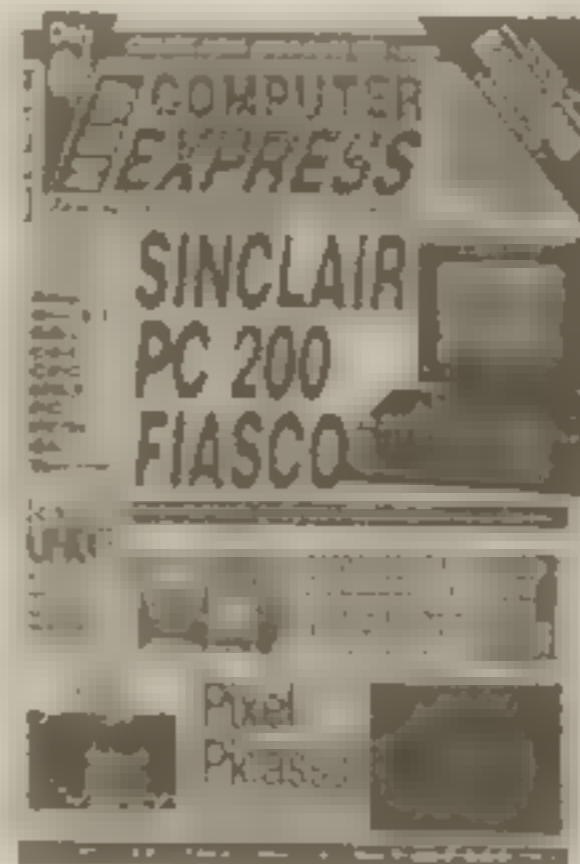
ISSUE 2 NOV 19 1988
"You can run Vic 20 games on the C64. You can use any Commodore games as long as they're lower than 64...." Lasky salesperson.

ISSUE 4 DEC 3 1988
The Sega Megadrive previewed in Japan. Due out Sept 1989, £200.

Atari engineers given the task of completing the £700 Stacey laptop.

Headlines we have lived... number 1
"KIDS ADDICTED TO NAZI HORROR GAMES"

ISSUE 5 DEC 10 1988
"AMSTRAD BLAMED FOR PC200 CHAOS" "High-street chain Comet has accused Amstrad of a "cock-up" after supplies of the new Sinclair PC200 turned up at stores



without manuals and essential software."

"FOUR MODE COUPE UNVEILED BY MGT exclusively released to *Express*. The machine, called the Coupe costs £149.95."

Headlines we have lived... number 2
"Wot's this eunuchs, then?" headline to Unix feature.

ISSUE 6 DEC 17 1988
Sagesoft rapped over their sexist ad "If she understands this headline, she'll understand our new network."

The *Express* Christmas comp offered £2,500 worth of prizes.

ISSUE 7&8 DEC22-JAN4
OUTRAGE OVER COMPUTER VIOLENCE CLAIM "Electronic games make kids aggressive"-psychiatrist. Nintendo contest claim.

The first Amiga games bundle has ten games worth £230. The Tenstar pack includes *Barbarian*, *Terrorpods*, *Wizball*, *Buggy Boy*, *Art of Chess*, *Photon Paint*.

ISSUE 10 JAN 14 1989
North Polar Expedition was the first interactive videodisc to be released by Virgin. Runs on the BBC Domesday laser disk system. You follow in the footsteps of Sir Ranulph Fiennes. £199.

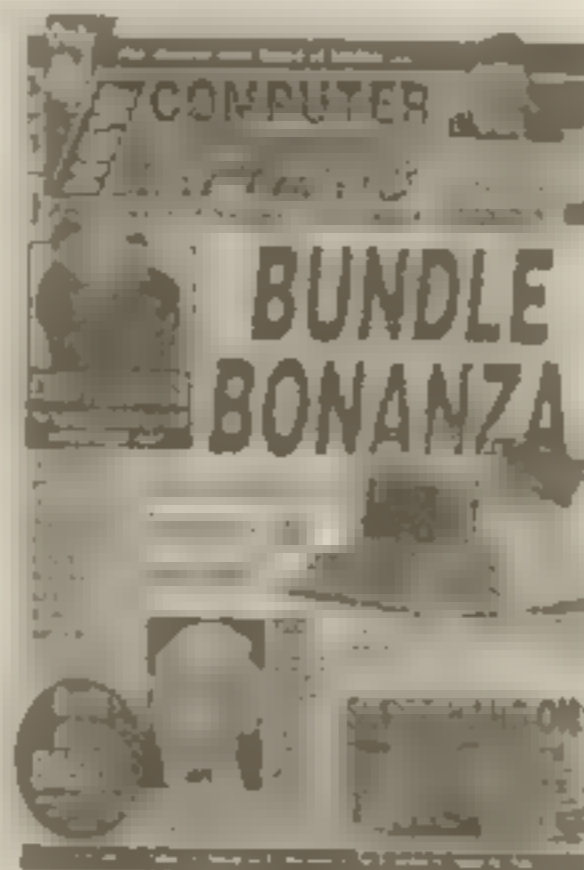
"In about a hundred years' time it will become apparent that

games programmers are the chimney sweeps of our generation." Mike Scialom on the plight of the underpaid computer whizz-kids.

ISSUE 11 JAN 21 1989
The word 'software' is banned in France.

ISSUE 12 JAN 28 1989
Matsushita develop a computer which can hear a sentence in Japanese and then speak it in English.

US Gold ad slammed as offensive. Two guys standing in front of hoarding showing young lady in bikini bottom and showing boob and holding a copy of *Psycho Pigs UXB*. Two guys standing in front of it



saying "I know which one I'd rather play with". "Yes, but have you seen the reviews for *Psycho Pigs UXB*?"

ISSUE 13 FEB 4 1989
KONIX STUNNER
Revolutionary system brings arcades to your homes.

"What we have seen from Konix is one the most exciting hardware developments for some time." Geoff Brown US Gold boss.

ISSUE 14 FEB 11 1989
"Invisible computer revealed!" Bell labs in the US "have created a stable form of matter sized to give it unique properties". "The dream of invisible computers though won't become reality for at least 30 years."

ISSUE 15 JAN 21 1989
"Bonkers games programmer Colin Dooley is so attached to his 'computer handle' that he's changed his name to it. "The Gremlin progger changed his name to Fungus the Bogeyman by deed poll. "Bogeyman has worked for Gremlin for three years."

ISSUE 17 MAR 4 1989
Gremlin recalls *FOFT* which is bugged to hell.

Beatle Apple goes into litigations with computer Apple.

ISSUE 18 MAR 11 1989
Headlines we have lived... number 3
"HACKERS SELL WESTERN SECRETS TO SOVIETS"

ISSUE 19 MAR 18 1989
"If it comes to a shoot out we'll do fine. We're good cowboys." MicroSoft's techno billionaire Bill Gates on facing up to the competition.

ISSUE 20 MAR 25 1989
A breakfast cereal called the Nintendo Breakfast System is launched in the US. Fruit flavoured wheat puffs shaped like characters such as the Super Mario Brothers.

Headlines we have lived... number 4
KILLER COMPUTER SHOCK
"A computer has been ordered to stand trial in the Soviet Union - for murder."

The Megadrive arrives as grey import.

"Hollywood Poker contains a zoom-in feature - because German's are pervies." Howard Newmark of US Action doing a Ridley.

ISSUE 21 APR 1 1989
First issue of *New Computer Excess* includes the following: YET ANOTHER RUDDY BUNDLE... Amiga to be bundled with ST shock!

ISSUE 22 APR 8 1989
Headlines we have >

THE TOP 100 cont.

lived... number 6
CYBER WITH ROSIE.

WH Smiths bans the Codemaster's *A Rock Star Ate my Hamster* or at least the copy of *The Stun* for being in bad taste. *Express* gave it two stars and made millions from a band made up of Morrissey, Lemmy and Salt 'n' Peppa.

ISSUE 23 APRIL 23 1989

The NEXT machine went on sale in the US. To schools for \$6,495. To the public \$9,995.

ISSUE 24 APR 22 1989

The Gameboy announced. "It is currently being put together in Japan."

Martech closes down.

ISSUE 25 APRIL 29 1989

Headlines we have lived... number 7
"HOW I LOST £37 MILLION IN A DAY... Sugar's bad day at the office"

ISSUE 28 20 MAY 1989

Headlines we have lived... number 8
"UK HACKERS RUN KGB SPY SCHOOL"

Intifada, the game which turns you into an Israeli soldier battering your way around the West Bank, hits the planet.

ISSUE 29 27 MAY 1989

HUMAN COMPUTERS FOR THE 21st CENTURY
Report claims neurocomputers will take over.

Ken Mosely appears in *Express*.

ISSUE 30 3 JUNE 1989

Headlines we have lived... number 9
"SPIES ADDICTED TO UK COMPUTER SHOWS"

ISSUE 31 10 JUNE 1989

News of the Lynx is broken in *Express*

ISSUE 32 17 JUNE 1989

"Doctors can now plant radioactive capsules inside a person's head which eat away fatal brain tumours - thanks to computer technology" *Express*

ISSUE 33 24 JUNE 1989

"The Iron Curtain of Churchill's day is the Maginot line to the microchip." Ronnie Reagan.

Tim Smith's **CENTER**

Write to 30 Monmouth Street, Bath BA1 2BW

I WISH I'D SAID THAT

Have you read or heard anything computer-related which made you fall about with mirth? If so, send it to 'I Wish I'd Said That' at the usual address.

"Can I go home yet?" Parent overheard talking to son in the

CES games show.

"Then the system will offer you choices of other exhibit(sic) related to prehistoric monsters. They might even have a skeleton of an Oric (sic) somewhere." *Express* (97).

Er... read page 19 of that issue

Mr Rawcliffe and you'll see that you misread Oric and exhibit.

"But he also boasts two other assets... His ears. In fact within the personal computer industry they are virtually unique. He uses them to design new products." Dell advert.

**READER'S CHART**

This week in the Bleeding Charts Club we have a special guest star giving her fave pieces of software. Yes, she's from beyond the grave and she's Queen Elizabeth I. Her prize, Britain's undying gratitude, goes to Lizzy Reg. So, here we go.

- 1) Er... what is a computer?
- 2) And software, what's that all about then?
- 3) Shoot-'em-ups, that like the Armada or what?
- 4) Chlps, do me a favour, we've only just discovered potatoes.
- 5) Now I get the idea, how about Pong?
- 6) No, I don't know then, have you got a fag?
- 7) Alright, alright, ummmm, *Leisure Suit Lizzy*?
- 8) Wrong again? I'll have anything from Palace.
- 9) Got any good head-chopping games have you?
- 10) Nah, well I'm off then.

Thanks to Corin Price of Aberdeen for her medium work on this.

Letter Spray

Want to see your name in print? Then write to Center

Sir, Being a proud (surprisingly so yes!) owner of the much put down PC2086 (yes the Amstrad one with the *Star Trek* styling) a problem has recently come to light - I can't afford any software. Thus picking up *Express* with my last pint, I decided that I would try to leech some hardware/software/cash/thank you notes from the notoriously generous people at *Express*.
D Quinlan, Co Wicklow, Ireland.

Dear D, I had to cut your begging letter for two reasons: firstly, it was a little too long, and secondly, I am a vindictive sort. Your affrontery appealed to me no end. However, I have decided to send you a copy of *A Question of Sport*. It's a darling little game and should keep you happy for minutes.

Sir, Hello carbuncle face, I have a few points to put to you so here they are. Easily numbered for reference.

- 1) My computer is better than yours. More specifically my Amiga is better than anyone else's Amiga.

- 2) Every member of the *Express* staff have(sic) small willies, and any female member is a right ugly cow.

- 3) Expletive deleted.

- 4) Alec Glucose is an itchy bum on the anatomy of the one-handed world hanging from a celestial cliff.

I think I have put across my views on the computer front most admirably. I may have broken some of your rules (all of them actually, and in order). I own an Amiga. Goodbye mortal. We will not meet again. Not that we ever met but it's metaphorically speaking you understand, and purely from a sub-existential point of view.
Yours forever, Tree.

Dear Tree, Because you have an Amiga, appalling handwriting, no grasp of the English language, sound like a jumped-up hippy, and think that you're a tree, I have decided to send you a copy of the superbly wafflesome Alan Sugar - The Amstrad Story. Never write again because I will be forced to sell my Amiga 3000 out of embarrassment.

WINNERS GALORE!**THE MAN WHO WON £100**

Yes, here he is, the man who was first out of the hat with *Express*' Reader Ads draw. Mr P L Allum is pictured here, as he says on his photo "In the middle". After training for many years in the

European Being Drawn First Out of the Hat sprints, Mr Allum finally cracked it. Congratulations. For those unlucky millions who didn't make it, write in and tell us whether you think we should repeat the competition.

WINNERS WINNERS WINNERS

Righty-ho my trusty 'folders' let's have some winners then. We will kick off with the old man standing by the shop caption competition from issue 98. And the winner is:



• Paul Trainer of Leeds. Paul snuck in with a true caption, not merely a speech bubble. His winning entry was: "Man seen rising after pleading with Tandy to take his name off their mailing list."

• Mr Bryan Kennerley of Rhyll gets an honorary mention for: "Shit, my back's gone!". I'm not sure what the honour is though.

• Mr L. Samaraweera of Harrow wins the digital thermometer for correctly guessing that the symbol for the Hitchhiker's Guide was a rubber duck.

• David Plater of Bridport wins the blank disks from the 'Von Trapp children' competition, and when he writes to tell me what format he needs I'll think about sending them to him.

By the way you're all vile. That picture of the Von Trapps was horribly sexist so none of you wins the mystery prize for telling me so.

Thanks to Leo Manifold for his attempt. Write again and I might just give you a prize.

THE TOSH TEN

Yet again, it's the Tosh Ten. Send your rubbishy computer-related items to the usual address and win an all expenses paid to... no seriously, win a prize. This week it's 10 computer games for the caring 1990s:

- 1) *Rick Pleasant*
- 2) *Space Respectors*
- 3) *Robosocialworker III*
- 4) *Shadow Cowards*
- 5) *Farm Yardage*
- 6) *Teenage Mutual Knitter Turtles*
- 7) *Operation Dolphin*
- 8) *F19 Flying Doctor*
- 9) *Human Healing Machine*
- 10) *Defenders of the Environment*

REFOLD

Tale Spin: Stories from the other side

This is the section which allows you to invent computer folklore, legends and lies.

PROSE BY ANY OTHER NAME

This masterful piece of prose was created on a DEC 11/70. This machine was programmed by Gilbert Bohuslav. Old Gillers stuffed DEC with various words from western movies, a little of syntax and a drop of grammar. William Gibson eat your virtual heart out:

Tex Doe, the marshall of Harry City, rode into town. He sat hungrily in the saddle, ready for trouble. He knew his sexy enemy, Alphonse the Kid, was in town.

The Kid was in love with Texas Horse Marion. Suddenly the Kid came out of the up-ended Nugget Saloon. "Draw Tex!", he yelled madly. Tex reached for this girl, but before he could get out it out of his car the Kid fired, hitting Tex in the elephant and the tundra.

As Tex fell, he pulled out his chess board and shot the Kid 35 times in the king. The Kid dropped in a pool of whisky. "Aha," Tex said, "I hated to do it but he was on the wrong side of the queen."

Pathos, plot, tears, violence. What more could even Zane Gray want?

EVEN YOUR BEST FRIENDS WON'T TELL YOU

Did you know scientists have isolated the chemical which causes body odour? The reason I mention this is because at least one of the egg-heads concerned used a computer at one time his (or it could have been her) life. By the way, the pongy devilment goes by the name 3-methyl-2-hexenoic acid. Tell that to the next sweaty oilrig worker who gets in the queue ahead of you.

THE SINGING ROAD

I have been informed by our technical editor - coaches driven, aircraft flown, nuclear

reactors fettled, half-pounders with cheese a speciality - that there is a road in Surrey which makes music. Specifically, when the weather is correct, and the wind is up, the road picks up Radio 1 (or at least it did before Radio 1 changed frequency). The reason, is that a whole load of faulty semi-conductors were dumped into the hard-core.

AD 9 FROM OUTER SPACE

A reader, who's name and address I don't have (bit of a cock-up on the letter-opening front), sent us the following snippet from a free local newspaper.

AMSTRAD 1640PC 40 MB
hard disk, EGA colour mon-
itor. £900 ono. 0474
852262. Eves/wknds.

If you were the person who placed the ad or sent the card, write in and we'll send you a prize. Sounds like money for old rope to me.

FROM THE ARCHIVE

A year's a long time in computers. Can you remember which console giant planned a business system? Who called computers "the devil's tool"? Who slagged Steve Jobs? And who drowned a kitten for publicity? Don't recall? Read on.

THE BUSINESS

It was Nintendo it was. The megally-vastly-biggly-normous Japanese corp was reported to have plans for a business system. The project was to be a collaboration between the Nints and a finance company called Fidelity Investments. The crux of the notion was a modem which would link users to the NES Network. The interface was said to be a series of Yes/No questions.

DEVIL MAY CARE

The open-minded sounding Christian Exclusive Brethren decided that booze had already been used a hobby horse, as had sex, jazz, motion pictures and even football (banned in the 17th century), so they picked on computers as being

the devil's tool. They took tracts from the Book of Revelations to back them up.

They even wanted to rant, sorry chat, with the then education minister, John McGregor, about getting computers out of schools. Where are they now?

JOBS DONE, START OF CHAT

"In terms of public relations yes, Steve [Jobs] is the most successful in the industry. But he does it by saying how crummy everyone else is." A tad bitchy perhaps? This was the comment of ex-Jobs fan Bill Gates, on his old pal the co-founder of Apple.

DROWNING NOT WAVING

Micronet offended fluffy-lovers throughout the country with an ad which proclaimed "If you do not renew your subscription we will drown the kitten in the picture."

The Advertising Standards Authority was said to have received "lots" of complaints. Even the RSPCA were up in paws about it.

Where is the kitty now? We should be told.

TOP 100! Cont.

ISSUE 35 8 JULY 1989

"Fastest machine on earth unveiled." Maybe not for the home user, it was the NCube and cost £19m.

Headlines we have lived... number 10

"Arting Around"... a story about the Amiga animation competition.

ISSUE 36 15 JULY 1989

"THE FILTH AND THE FURY"... Headline to a hacking feature.

ISSUE 37 22 JULY 1989

Headline we have loved... number 11

"Nana nana nana nana nana" ... yes, Ocean gets Batman.

ISSUE 38 29 JULY 1989

Amstrad is forced to replace hard drives in all their PC2000s.

"Gallic crooks grab games" A

gang of French villains surprised the gendarmes when they hijacked a lorry and nicked thousands of computer games.

ISSUE 39 5 AUGUST 1989

"Er... no I can't comment on this on or off the record. And don't quote me on that." A usually fearsome software industry figure who turned a bit wibbly at the mere mention of Nintendo.

ISSUE 40 12 AUGUST 1989

Headlines we have lived... number 13

"WHY I SPIED FOR THE RUSSIANS. Computer snoop confesses." Hanz Hubner to be exact.

ISSUE 42 26 AUGUST 1989

Headlines we have lived... number 14

"Who needs Michael Fish?" This one was about Dartcom the weather device for the PC.

ISSUE 45 12 SEPTEMBER 1989

Headlines we have lived... number 15

"Rays from outer space crashed my micro". Well sunspots really.

ISSUE 49 14 OCTOBER 1989

"If you do not renew your subscription, we will drown the kitten in the picture." Micronet advert.

ISSUE 51 28 OCTOBER 1989

SPROUTING PROBLEMS The Belgian Stock Exchange computer crashed. One broker

said "International dealers have been ringing up and asking what happened to our Mickey Mouse computer system."

Headlines we have lived... number 16
PROGRAMMERS AREN'T BORING

ISSUE 54 4 NOVEMBER 1989

"We're furious and you can print that." Atari's response to the Express exposé of the STE failings.

ISSUE 53 11 NOVEMBER 1989

Headlines we have lived... number 17
"Computer smellchecker" The first microchip hooter is revealed.

And number 18

"Computerised cops find technology too taxing" they prefer true notebooks.

ISSUE 45 12 SEPTEMBER 1989

This week's cover featured the following immortal lines: "FIASCO How this man has helped the hackers" It also featured a picture of Nicholas Ridley.

"We can't have Sooty shooting things. He has to be passive in the game." Roger Hulley of Alternative.

ISSUE 57 9 DECEMBER 1989

Sega had plans to release disk drives, graphics tablets, keyboard and comms add-ons for its consoles.

Headlines we have lived... number 19

"TERRORISTS MAY STRIKE MICROS"

ISSUE 58 12 DECEMBER 1989

The 'my company is better than yours' argument was really rocking, with Atari getting upset at Commodore's marketing claims for the Amiga.

A new chip was developed which could cure its own faults.

ISSUES 59/60 1989

Headlines we have lived... number 20

"Few What A Scorcher" Their *Finest Hour* was released by Lucasfilm.

The AIDs information disk containing a trojan was also in the market. This wins the Express prize for the ultimate in vileness.

THE TOP 100! Cont.**ISSUE 61 ■ JANUARY 1990**

David Levy's attempt to beat Deep Thought at chess failed.

DC Comics were said to be launching *Batman: Digital Justice*. It was to be put together on a Macintosh and feature 3D graphics. The Joker was a virus.

Postman Pat was the budget 8-bit game of the year.

ISSUE 62 13 JANUARY 1990

PC Engine is reviewed as the "World's greatest games machine"

Headlines we have loved... number 21 "Getting the Willis" Brucey stars in *Die Hard*, did you play it?

ISSUE 64 27 JANUARY 1990

"SOVIET MIND MICRO ON SALE ■ STATES", "Brain altering device launched on American market". Was this the first sign of Cybernost?

UNIX systems may well be adversely affected on January 1 2000AD. They can only cope with the 20th Century.

ISSUE ■ 3 FEBRUARY 1990

Robert T Morris Jnr was the person to be convicted under the American Computer Misuse Act.

The Civil Aviation Authority decided to train pilots using simulators running on Amiga 2000s.

"Computer systems which are deemed to be of prime importance to the nation are to be protected by a new 'Disaster Bill'."

ISSUE 66 10 FEBRUARY 1990

AT&T Bell labs managed to get its corporate nose ahead of the field by developing the first processor to work using light.

The PC AIDs virus saga got a happy twist with the arrest of Joseph Popp in the United States.

Headlines we have lived... number 22 "Bull shift" French company Bull planned to shed 1,200 jobs.

The Tories quibble about hacking.

ISSUE 67 17 FEBRUARY 1990

Headlines we have lived... number 23 "MENTAL OR WHAT?" Mind Machines are with us.

*Headlines we have lived...24 "WINNER OF OUR DISK CONTENT" Billy Shakes goes on disk.

A Reuters journalist sues over repetitive strain injury (RSI).

ISSUE 68 ■ FEBRUARY 1990

Plans for the new CPCs are revealed in *Express*.

Rick Dangerous is to be released in simplified form for the dummies.

"Choo choo. At last Thomas the Tank Engine is to appear in a computer game." Choo choo??

ISSUE 71 17 MARCH 1990

Joysticks with no wires, listening PCs, intelligent television sets, and game for the PCW. A packed issue.

ISSUE 72 24 MARCH 1990

RSI sufferers are awarded £100,000 in damages.

"Computer Tipster backs 100-1 Gold Cup winner." Norton's Coin did more for *The Tipster's* advertising than ITV by winning the big race at Cheltenham.

ISSUE 75 14 APRIL 1990

"COUPÉ BUG FORCES RECALL OF MACHINES." The beginning of the end?

Headlines we have lived... number 25 "COMPUTER WHIPS ROULETTE WHEEL"

ISSUE 76 21 APRIL 1990

Phone phreakers are targetted by *Express*.

The Tiptster backed a donkey at the Grand National.

ISSUE 77 28 APRIL 1990

"SEGA'S HANDHELD IN UK NEXT YEAR" An *Express* prediction you can check out soon.

Apricot is sold to Mitsubishi.

A computer is developed which could be a wine bore in years to come.

ISSUE 78 5 MAY 1990

FAST goes 1984 with cartoon ads offering rewards to 'the kids'; "Let's turn the tables on these crooks" translates to "Let's make some dosh."

ISSUE 79 12 MAY 1990

"CONTEST STARTS THE RACE FOR THE HOME ROBOT"

Details of Sega's new colour handheld,



the GameGear, are printed.

ISSUE 80 19 MAY 1990

"Amiga with 16 million colours"

Headlines we have lived... number 26 "Papal Bull... Only weeks after Pope John Paul II warned about making technology an idol, the Vatican has shown faith in its own ability to avoid this idolatry by purchasing a Bull mainframe computer."

ISSUE 81 26 MAY 1990

Headlines we have loved... number 27 "Chip talks like Kylie and Jase" A chip is developed which allows computers to talk with Aussie accents.

Express fave *PGA Tour Golf* is released by Electronic Arts.

Headlines we have lived... number 28 "Your conversation is in the oven" It's microwave phones.

ISSUE 83 9 JUNE 1990

The CDTV is here! Well in the United States anyway.

ISSUE 84 16 JUNE 1990

"ATARI DISMISSES 'IMMATURE CD-ROM'"

MGT calls in the receiver.

ISSUE 85 23 JUNE 1990

"C64 CONSOLE THIS AUTUMN" *Express* again.

Headlines we have lived... number 29 "NO SLEEP TILL PUTNEY" A remote control device for the PC.

Headlines we have lived... number 30 "It's Lisa with an aaah..." 2,700 Mac Lisas are buried in the US.

ISSUE 90 19 MAY 1990

Express reveals Sony's handheld CD-I devices.

A woman gives birth, but only after finishing *Xenon II* which she played while heavily on labour.

Headlines we have lived... number 31 "SOVIET HOBBIT COVERS THE RED END OF THE SPECTRUM" Er yes... the Soviet Speccy is here.

ISSUE 87 7 JULY 1990

Headlines we have lived... number 32 "My, what a big chopper!" We do make the most of Domark's advertising hunk with his axe.

We were also carried away by the World Cup, a dead red indian, and a PCW to bring you... "ENGLAND A CERT FOR THE CUP, SAYS PCW"

ISSUE 88 14 JULY 1990

Headlines we have queried... number 1 "Give a monkey an Apple Mac and she will read her books" Um, yes, this one was about a Californian gorilla and a Mac.

ISSUE 90 28 JULY 1990

First news of the new Amiga games bundle featuring *Days of Thunder*.

ISSUE 92 11 AUGUST 1990

"A must for every Boeing 747 owner; the new Automated Washing System can wax a jumbo in 80 minutes" Er... yes.

ISSUE 93 18 AUGUST 1990

Headlines we have lived... number 33 "CHANT PUTS A HEX ON LOTUS" The League for Programming Freedom picket Lotus with the following hex chart: "1-2-3-4, Kick that lawsuit out the door! 5-6-7-8, Innovate don't litigate! 9-A-B-C, Interfaces should be free! D-E-F-O, Look and Feel has got to go!"

ISSUE 94 25 AUGUST 1990

"SHAREWARE FURY AT CHILD PORN CHARGE" Shareware 1990s is hassled by the *News of the World* for one of the most boring maze games ever seen.

ISSUE 95 1 SEPTEMBER 1990

"IRAQIS STEAL BRITISH COMPUTER SECRETS" Yes, they trot off with a high-tech encryption/decryption device.

ISSUE 96 8 SEPTEMBER 1990

Headlines we have lived... number 34 "Plastic Macs arrive at last"

ISSUE 98 ■ SEPTEMBER 1990

"LONDON OVERRUN BY MONSTERS" The definitive CES report. Written at pace and with horrendous hangovers at the show itself.

ISSUE 99 29 SEPTEMBER 1990

Headlines we have lived... number 36 "Lots and lots of funerals" *The Godfather* become a game.

ISSUE 100 6 OCTOBER 1990

Er, that's it.

◆ Free Ads

A500, monitor, 1Mb, printer, modem, external drive, loads software will sell or part exchange for a PC. Anything considered, phone Dave evenings after 6pm on 0761-52450

DATAEASE 4 - bought this year, manuals, tutorials etc. Education version database for PC £150. Also Psion organiser model CM, manual £55. Tel. 021-777 8808

MACINTOSH SOFTWARE unused! Trapeze £130, Read Set Go V.4 £250, Image Studio £250, IBM PC: PageMaker £250. All new! Contact Derek on 081-677 4727.

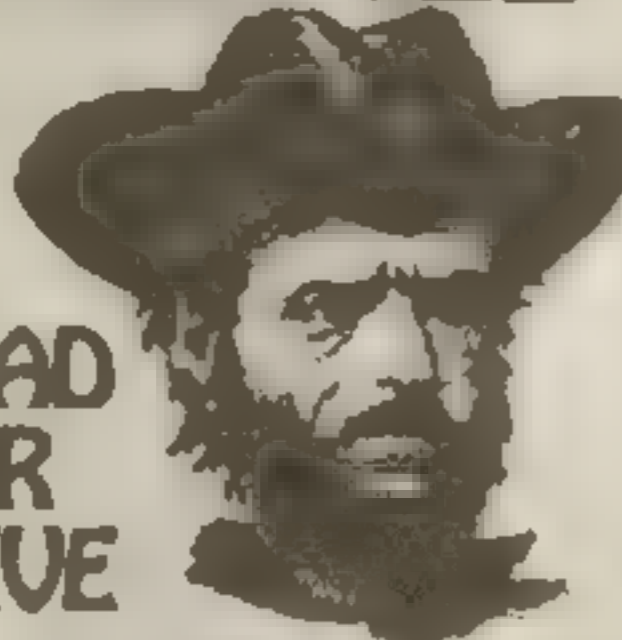
MSX-2 Philips NMS8245 - complete system. CM8833 monitor, 37 games on disk/cart, mouse, DSDD, MSX printer, datacarder, communications and business packages - £550. Phone for details on 0642-564932

MSX Toshiba HX10, HX-564, Wordpro, Computermates, 'MSX text/cards', cart games including 1942, Nemesis 3, Carts, programming books/mags, joysticks, datacarder £100. Phone for details on 0642-564932

TRADE BINATONE midi hi-fi with CD player and compact disc for Atari STFM or STE or Amiga. Cost £300 - contact Lee on 0226-758256

OLIVETTI PR15 PRINTER for sale £75 ono. If your interested call Andrew on Preston 0772-314947 anytime.

WANTED



USE YOUR VOICE TO OUTDRAW THE GUNFIGHTER

DEAD OR ALIVE

CASH PRIZES

0898 31 35 94

INFODIAL POBox 36 LS1 4TN Call charges 33p Per Min Cheap 44p Per Min All Other Times

PRINTER - wide carriage, very good condition. Epson compatible £150. Tel. 0784-482422 (Staines).

AMSTRAD 6128 colour plus printer, software and books, genuine bargain must sell £350 ono. Tel. 0328-46915

AMSTRAD PCW 8512 with Mini Office Professional + 7 blank branded disks and case. £250 for the lot. Call Tommy on 081-852 8578 after 6pm.

AMSTRAD 6128 colour monitor and TV. Also mono monitor plus loads of software £275 or will split. Tel. 0793-610325 (Swindon) anytime.

SEGA MEGADRIVE (Scart) with eleven top titles. Everything boxed. Sell for £320 ono. or swap for Super Grafx with games. Tel. 0306-885003

ATARI ST games Stac, Pirates, Gunship, Scrabble, Starglider 2, Balance of Power - all with original docs etc. £45 ono. Tel. 041-632 9903 after 6pm.

SPECTRUM+3 software for sale. CP/M, Masterfile, utilities and more. All originals with manuals. Various prices. Tel. 0472-887216 for details.

SINCLAIR 128K +2 joystick, keyboard £50 Light pen + programs and manuals £2. Games ranging from 25p - £1 and magazines 10p each. Perfect condition. Contact Gregory at home on 081-348 3134

AMSTRAD Consise Basic specification £5.50 - RRP £19.99 NCE 43, 47-60, 62-67, 69- 49p each. Amstrad software from 30p. Anthony Branchley, 25 Glanfield Road, Beckenham, Kent, BR3 3JS. Tel. 081-658 4134

ARCH 310M Colour. RISC-OS, 5.25" disk, buffer software, no serious offer refused. Tel. 0903-35107

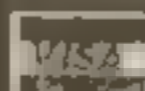
COMMODORE PLUS 4 games for sale. Send SAE for list to H Black, 10 Kepplehill's Drive, Bucksburn, Aberdeen, AB2 9PQ.

TELETEXT

A world of information at your fingertips

IS YOUR PC UP TO DATE?

Now you can feed it with the very latest sports results, financial information and World news from Ceefax or Oracle. Save pages, print them and even access Teletext from your own programs. The Microtext Adaptor for the PC is a plug in half card and comes complete with software, everything is supplied, just plug in a TV aerial. At just £169.50 + £3.00 p/p + VAT (= £198.30) it's excellent value for money.



MICROTEXT



Dept CE, 7 Birdlip Close, Horndean, Hants, PO8 9PW
Telephone: 0705 595694 Fax: 0705 593988

ATARI 8-bit software originals as new. Some classics, games and utilities. Phone Graeme for list - evenings only. Tel. 0203-311670 also Peugeot 309 GTI bumper (offers).

TANDY 102 portable, new, boxed, £200 ono. Magazines C&VG, PCW, Commodore Computing International and other defunct magazines, mainly commodore based. Offers - Tel. 081-579 1507

ST GAMES Thunderbirds £9, Custodian £8, Orbiter £10, Spitfire 40 £9, Strikeforce Harrier £9, Tai-Pan £6, Exolon £7, Championship Waterskiing £6, The Running Man £10. Tel. 0705-462140

SHARP IQ7000 with language translator and thesaurus/dictionary cards £150 Tel. Steve on 0892-662698 evenings only.

PC ENGINE (PAL version) with 2 cartridges in mint condition - sell for £160 ono. Phone Paul on 0272-652754 after 5.30pm. Quick sale needed. Phone Now!

PC ENGINE with latest PAL x2 adaptor plus three games for £95 incl. p&p. Phone 0222-487794. Ahmed, 32 Boverton Street, Roath, Cardiff, S Wales, CF2 5ES any time. Hurry!

MASTER 512K co-pro with twin drives and amber monitor, music 5000 synthesizer plus books and software. Offers contact: Miles, Alwyn Cottage, Highfield Road, Bream, Glos.

AMIGA B2000 brand new, 20Mb PC/Amiga hard drive, PC/XT bridgeboard, 5.25" drive, boxed with manuals, installation disks etc. £850 ono. Tel. 0243-774767 after 6pm.

mph COMPUTER SPECIALIST
10 Chandlers Court, Eaton, Norwich. NR4 6EY
Telephone: Norwich (0603) 503382

◆◆◆◆ AMAZING NEW DEALS! ◆◆◆◆

10	3.50" Disks+.....	£6.75	10	5.25" Disks+.....	£4.00
25	3.50" Disks.....	£15.00	25	5.25" Disks.....	£9.50
50	3.50" Disks.....	£28.00	50	5.25" Disks.....	£18.00
100	3.50" Disks.....	£54.00	100	5.25" Disks.....	£34.00
80	Capacity boxes.....	£6.50	100	Capacity Boxes.....	£6.50

ALL DISKS COME WITH 2 FOR 1 LIFETIME GUARANTEE. 3.5" MADE BY SONY.

SPECTRUM+ complete with joystick £30. Alphacom printer c/w roots £55. Microdrive expansion kit c/w two microdrives £55. 30 microdrive cartridges £50 or for £170. Tel. 0983-402273

BARGAIN OFFER Atari 8-bit 65XE. Some games, cartridge tape deck, joystick - take off me for £70. Bob, 43 Kingsway, Newcastle, Tyne & Wear, NE4 9UJ. First reply C.O.D.

NEW AMIGA MOUSE for sale only £15. Also Amiga modulator only £10. Phone 061-338 5566 after 4pm and ask for Richard.

ATARI 520STFM with 2Mb double-sided drive. Mint condition with boxes. Sell for £220 ono. Phone Paul on 0272-652754 after 5.30pm. Quick sale needed. Phone Now!

COMMODORE 64 with disk drive, a few disks, two tape decks, £500 worth of games, joystick and Music Maker £350. Tel. 0993-779936

AMIGA A500 with external drive, joysticks etc., loads of software 200+ games, all the latest stuff. £300 no offers. Tel. 0202-479080 after 6pm.

SEGA GAMES SYSTEM with 3 games. Hardly used £30 ono. Also Apple IIe, monitor and disk drive - any offers. 0249-814547

MEGADRIVE Ghosts and ghouls to swap. Also, Megadrive games wanted. Also brand new Spectrum+2a computer and lightgun, loads of games. Immaculate order. Tel. 081-504 8861

1MB AMIGA A500, Kickstart 1.2, 2nd drive and nearly 500 disks containing animations, utilities, public domain and entertainment software. £590. Tel. 0202-682195 weekdays.

DATA PLUS

THE DATA NETWORK SOLUTION

Complete network installations for the business user

All types of data cabling:

- LAN
- COXIAL SYSTEMS
- TOKEN RING
- BROADBAND

TEL: 0903 766931/0831 468224 (mobile phone)

0784 466743/0860 223708

ALL WORK CARRIED OUT TO THE HIGHEST STANDARD

AMIGA originals, F18, Starglider 2, Millennium 2.2, Gunship, Barbarian 2, RVG Honda, Ferrari F1 + more £7 each. Also Robot Arm + software. Tel: (0348) 873738 after 6pm.

SEAGATE ST225 hard disk drive, 21Mb capacity. Brand new, unused and still sealed in original packing £150. (Cost over £200). Phone (0280) 813175 eves/weekends.

SPECTRUM +2 with joystick, few magazines, over 110 original games (budget and full price). Bargain at £150 (including postage). Phone Ian on (0244) 345169.

SPECTRUM +3 for sale. Includes joystick, leads, manual, over £150 of games and loads of mags. Phone James on 081-995 1252. Sell for £180 o.n.o.

SPECTRUM +3 Multiface 3, 2 joysticks, 100+ games and 40+ mags, v.g.c. £150 o.n.o. Ring (0444) 246921 evenings - a bargain not to be missed.

AMSTRAD CPC464 with TV modulator, joystick, £150 games, manual, magazines. Buyer collects for quick sale - £100. Ask for James (0306) 886569.

ATARI STE 2Mb RAM. Excellent condition only £399. Ring Reading (0734) 889181.

BOOKS for 'alternative' micros eg: Mk14, Spectrum, CPC, QL, Apricot, Oric, Aquarius, more. S.A.E. Jones, 2 Town Mead, Oakford, Devon, EX16 9EW.

LYNX for sale with five games including Chip's Challenge, Gauntlet 3 and many others. Contact Nick (Isleworth) 081-560 0197.

C64 mono, 2 joysticks, over 59 games + 64K memory expansion worth £553, price £350. Phone Nick 081-886 5216. N. London. PS. + modulator.

AMSTRAD CPC6128 computer, colour monitor, DMP 2000 printer, joystick, Mini Office 2, Brunword word processor, manuals and disks. Hardly used £220. Tel (0256) 781387 after 5pm.

ATARI 520STFM. Excellent condition, includes: Contriver mouse, joystick, STOS, games, PD, demos, sound sampler, computer link, issues 1-14 ST Format etc. Offers: David 091-389 1577.

ENTERPRISE 64, no offers. Apple IIe system £250 o.n.o. Call for details: Richard (0573) 26032. All computers have leads, manuals, etc.

464 mono, joystick, 120+ games, costing over £400, 20+ Amstrad magazines, worth over £750, sell for £350. Buyer collects. Phone Jason 081-882 3703.

MSX HX-10 computer for sale with 52 games, cassette recorder and manuals, worth over £300, will sell for £80 o.n.o. In excellent condition. Simon: (0656) 771716.

OFFICIAL A500 memory upgrade RRP £150, A501 now selling for £60 no offers. Still boxed as new, call 081-551 3731 after 7pm. Ask for Tak.

CURRAH speech £7.50, Comcan £7.00, Trivial Pursuit £7.00, Graphic Adventure, Creator £12, many more inc. Jack the Nipper, from 50p. Wanted Atari bits: (0721) 20863.

SPECTRUM 128K + 2 plus loads games, including Leaderboard, Op Wolf and dozens of others, with two joysticks and manuals, just £90 o.n.o. Phone Sean (0293) 28291 (home).

BBC master 128 40/80T disk drive, Watfords Quest and AMX with mouse, loads ROMS, over 60 disks and books £375 o.n.o. Brighton (0273) 412669.

AMSTRAD CPC464 colour computer with manual, free software pack and 10 other games, £180 o.n.o. Also DK Tronics lightpen on tape £12. Phone Adrian (0992) 461235.

PC ENGINE Pal + (takes two adaptors) with three games only £75. Phone Ahmed (0222) 487794 or write: 32 Boverton Street, Roath Park, Cardiff, S. Wales, CF2 5ES. Hurry.

SPECTRUM 48K and data recorder both boxed, as new condition, with manual, books many games £39. Tel: Guildford (0483) 577934.

MAGAZINES for sale, send S.A.E. HP718 hand held competer £100. Centronics GLP 19 pin printer £55. Contact Stephen Neal, Meon Ley, Upper Quinton, Stratford-on-Avon, Warwickshire.

ZX Spectrum +2, with £400 software, books, joysticks, plus Citizen 120D printer with parallel interface £180. 4 Hadrians Close, Salendine Nook, Huddersfield. Write to confirm.

AMOS game creator with new extras disk £30. Amiga Action Replay cartridge, boxed, new, unwanted gift £40. Tel: Julian on (0742) 438542.

MODEM, British Telecom Merlin, v.29, 9600, 7200, 4800, 2400 baud rate. Full Duplex 4 port multi-plexor, new and boxed with manual, only £150 o.n.o. Phone 081-866 7152.

SPECIAL BULK DISK OFFERS

Bulk Packed Disks

	100	£42.16	£22.32
Standard Packed Disks (Box 10)			
High Density Disks also available on request			
	3.5" DS/DD	5.25" DS/DD	
1-4	£6.02	£3.44	
5-9	£5.87	£3.35	
10+	£5.72	£3.27	

All disks include label kits and are 100% error free, guaranteed for life. Branded disks available on request. Also printer ribbons, data cartridges, paper etc. Agents for Canon consumable products and Deanes computer office furniture. Agents for Imagineering, promoting the Ultra PC range. VAT and delivery not included. Prices subject to change without notice.

TAMMIGAN

Education & trade enquiries welcome
Telephone: 0245 324976

PC Engine (PAL) with six games including New Zealand Story. Excellent condition and 12 months warranty £185 o.n.o. or swap for megadrive. Tel: (0533) 739174 after 5pm.

AMIGA software for sale: all originals - Batman, Nebulus, Rampage, Roger Rabbit, StarRary, A.P.B., S.E.U.C.K., £40.00 o.n.o. Will split, write to: Simon, 68 Richmond Road, Cardiff.

ATARI 520STFM, double sided disk drive, mouse, leads and manual, over £500 games, boxed, as new, in mint condition £210 o.n.o. 081-518 1176.

TWO C90 sides of Soundtracker and sampled music recorded of the Atari ST. Send blank tapes plus £3 to 57 Tennis Court Drive, Leicester, Humberstone, LE5 1AJ.

LOTUS Symphony rel. 2, new 3.5" discs, original, hardly used, great bargain £125. Ring (0743) 231567, evenings ans. phone.

CBM64 colour monitor, disk drive, printer, data cassette, set of Input mags, utilities over 50 games £450 o.n.o. Phone Brierley Hill (0384) 74305.

COLOUR monitor QL 640K manual, programs, games, joystick, £225 o.n.o. Phone 081-948 5477.

AMSTRAD PC1640DD mono display, DMP4000 printer, Wordstar, SuperCalc, Accounts Master, software included. All equipment unused, six months old, change of job forces sale £790. (0780) 782620.

AMIGA Cumana external 5.25" drive 40/80 track switch, on/off switch, 8 months old, £75. (0633) 858819 ask for Andrew.

AMIGA 500 with 1 meg expansion, 2nd disk drive, modem and modulator, loads quality software disks, books, etc. Perfect condition, boxed £395 Adam 081-397 3546. Helen 081-399 9429.

STAR LC10 colour dot matrix printer. Excellent condition, hardly used £175 o.n.o. 081-995 2147.

SEGA Master System, joystick, 22 games including many top arcade hits. Bargain £250, worth over £500 (quick sale) Tel: Southampton 600560.

DISC boxes, 3.5" 80 capacity, 2 new £8, 2 used (as new) £8. 25 discs, DSDD, new, sleeved, £9 (surplus - backups, archived) Coventry (0203) 460410.

ATARI ST software, all boxed originals with instructions, sell the lot for £55. (04024) 57507.

AMSTRAD 6128 stereo amplifier tape deck, Clarion speakers, joystick, lots of mags and games and posters. Call Jaydeep 081-577 5861. Make me an offer, after 6pm.

AMIGA 2000, monitor, printer, hard drive, 2nd drive, video camera, graphics and sound software, 300+ PD disks, games + more £2,700. Tel: (0933) 50691 after 5pm.

AMIGA A500, 1Mb upgrade, 2nd drive, loads of software, books, Panasonic KXP1081 printer. Reluctant sale, £450 the lot. Tel: Hugh (074) 4937 after 6pm.

AMSTRAD CPC6128, mono monitor, datacarder, leads, lightgun, joystick, games, less than 12 months old, £200. Tel: (0772) 39146 (Preston area) - excellent condition.

ATARI 520STFM, 1 meg internal drive, £250 worth of software (inc. STOS), lots of PD. Sell for £250 o.n.o. Phone (0242) 525034 after 5pm.

ATARI portfolio with 32K RAM card and Atari Lynx with three games for sale. Best offer secures. Tel: (0580) 714445 ask for John.

AMIGA games: Battletchess £10, Blood Money £6, Beast £8, F29 Retaliator £9. All boxed, as new plus more. Phone Dave on Sheffield (0742) 337960.

EXPAND YOUR COMPUTER OUTPUT USING THE FOLLOWING SERVICES FROM COLOURFAST

COLOUR LASER COPYING

Stunning full colour reproductions on top quality A4 and A3 paper, labels or OHP, with lots of special effects

ENCAPSULATION

Your printed work enclosed between strong film which can protect it from grease, dirt, oil, chemicals, water etc.

LASER TYPESETTING

From ATARI ST and AMSTRAD 8000 discs using standard formats.

FOIL COLOUR TRANSFER

Overprinting of metallic foil on to laser printouts and photocopies to produce fantastic looking documents.

HOT FOIL PRINTING

On paper, leather, pens, plastics etc in any various font and graphic styles. Many colours available.

SCANNING

For Atari ST users, scanning of pictures, text and graphics to disc in various formats.

Your computer can now be the first step in producing a wide variety of top quality print applications at low cost for private, club or business use. Contact: **COLOURFAST** 15 ELM COURT, SONNING COMMON, READING, BERKS, RG4 9ND. Tel: (0734) 724617 anytime

PC engine for sale. Plus four games (Pal PC engine) boxed, very good condition. Sell for £160 o.n.o. Phone (0898) 278335. Ask for Steve (evenings).

ATARI 520STFM, 1 megabyte memory, 1 megabyte internal drive, £700 of original software (STOS, Castle Master, etc.), loads of P.D. & accessories, £350. Chris: 021-550 6489 for information sheet.

ST software Metacomco, Revised Basic with 322 page manual. As new, STE compatible, £5.50. Also serious mono contacts wanted. Electronics, Somerville, 56 Leamington Terrace, Edinburgh.

SPECTRUM 48K+ with two joysticks, 120+ games and other software/hardware. Only £100 - all offers considered. Tel. 0836-380187

QL for sale. 128K, microdrive cartridges £50 ono. Tel. 0836-380187

AMSTRAD PCW8256 with Locoscript 1+2, Mini Office, blank disks, hardly used, still boxed. Bargain £220 Tel. 0244-535310 after 4pm.

ATARI 520STFM original Silica pack £300 worth of software including 1st Word, Neochrome plus many adventures, games. All boxed, immaculate £200 o.n.o. Phone Mike (Oxford) (0865) 728638.

FOR sale Sega Master System, in mint condition, with five games including Shinobi, Hang-On, Casino Games. All for £100 o.n.o. Phone Paul on (0360) 310803.

MEGADRIVE Batman £26, Phelios £25, Curse £24, Alex Kidd, £16. Phone Samir 081-592 2117 looking for buyer in London area. Also Thunder Force 3 £25.

AMSTRAD 8256 word processor for sale, best offer over £250. Includes light pen, joystick, games, exbasic. Call Doug on (0763) 852324 evenings. Computer desk £10.

SEIKOSHA inked printer ribbon for 5" printer model GP50S. Brand new unopened £4.00 o.n.o. Gold, Silver, Bronze game pack Spectrum £8. Tel: (0802) 411537.

AMIGA Action Replay cartridge, boxed, new m/c monitor, Freezer £40 Amos Game Creator plus new extras disk £30. Ask for Julian on Sheffield (0742) 438542.

CHEATS disk issue 4 for Amiga, last chance to buy! Only £2.50 wow! Send cheque/PO to: J.S. Smith, 45 Maplecroft Crescent, Sheffield, S9 1DN, South Yorks.

AMSTRAD CPC6128 colour monitor, games, spreadsheet, joystick, mags, books, systems and normal disks. Amazing offer, worth £440 only £210. Contact Mark on 081-650 0694 anytime.

SINCLAIR Spectrum 128K +2, good condition + 230 games, 2 joysticks, lots of mags. Quick sale £150 o.n.o. Tel: (0932) 352108

OPEN ACCESS BBS On-line 6pm til 8am Mon-Fri and 24 hours weekends. Give our friendly board a call now on 081-427 3974.

THE SATURN BB bulletin board phone 0282-23570 after 10.30pm. 10Mb of software on-line. Sub-boards and much more. See Prestel 811220044 for info or MBX 219998996.

0242-260685 the one to call. S-A-C BBS on-line 24 hours V21/V22/ V23/V22 BIS for Amiga and PC. Don't miss out - phone now.

BARNEY'S RUBBLE BBS on 021-441 1801. Birmingham-based, 24 hours 300-2400 baud. MNP5 Amiga, IBM PC. Programmers. Penpal, Comms sections. 100Mb downloads plus 30 local and echo conferences. Fidonet (2:253/153)

PRINTERS

	RETAILED	OUR PRICE
WALTERS WM100 9 pin dot matrix (P)	£185	£69
DYNEER DW40 daisy wheel (P)	£995	£129
RICOH RP1600 daisy wheel (P)	£1700	£199
EPSON MP40 portable dot matrix (S)	£129	£39
OKI MICROLINE 83 dot matrix (P & S)	£419	£85
WENGER 4/1 18 pin dot matrix (P & S)	£2,400	£249

ALL PRICES SHOWN EXCLUDE V.A.T. & P & P. ALL PRINTERS NEW & BOXED SOLD WITHOUT WARRANTY. WARRANTY CAN BE ARRANGED.

7 DAY MONEY BACK GUARANTEE (DOES NOT INCLUDE P & P) FROM DATE OF DELIVERY.

MIACOM TEL 048649 456

Announcements

MONEY MONEY MONEY! Would the person to whom I sent STOS please send me my money. What's the world coming to! Phone Graham on 0323-896767

GREAT NEW UTILITY program (for PC) "FDKIT" v3.14b. Send disk + SAE or £1 to David Castledine, 2 Croughton Close, Kingsthorpe, Northants, NN2 8NZ. Other progs also.

PLEASE NOTE that the Brunel BBS has changed phone numbers from 0272-655786 to 0272-584352 and is now 24 hours at 2400 max baud. Thanx.

WANTED: Experienced ST artist to write regular column for PD disk magazine. No money, but your name in neon lights! Phone John on 081-546 0993

STEN NO.0 news disk free! For Atari ST1 Send disk and SAE to Paul Sealy, 31 Hartfield Crescent, West Wickham, Kent, BR4 9DW.

CARL'S 2ND CPC NEWSLETTER now ready. Send 30p plus A5 or larger envelope with 20p stamp to: Carl Surry, 37 Fairfield Way, Barnet, Herts, EN5 2BQ.

FEMALE ARTIST looking for contacts to do artwork worked with Automaton and PSI. Write to Kay, 23 Derby Road, Gloucester, Gloucestershire.

JUNE ISSUE (issue 2) of the disk-based ST magazine, "Stampede" has Signum virus on disk one!

FREE - latest virus killers/finders disk or RAM resident for the IBM PC or clones. £2 each (for the disk + p&p) Tel: 0905-53248

Personal

HELP wanted to connect spectrum +3 Casio FX-850P personal computer using RS 232 Tel: (0324) 712505 after 7.00pm

HELP! Anyone got any information about programming the Archimedes VID registers? Contact: Stuart Tyrrell, 2 Woodside Avenue, Moss Bank, St. Helens, Merseyside WA11 7BS.

SIMON Hardy contact Martin Ellerker from P.W.S. before 18th September. Write to me at 22 Orchard Lane, Woodnewton, Petersborough, PE8 5EE.

SPECTRUM plus three owner seeks penpals all ages females welcomed guaranteed 100% reply contact Darren, 16 Four Winds Road, Dudley, West Midlands DY2 8BY.

MODEM Dowty Quattro. Boxed, manual fully working original cost £795 auto dial auto answer sell for £300

THANKS. Fellow Atarian for the 8 bit stuff. Graham Bilston.

DO you own a Spectrum and a Swiftdisc interface. If so please contact Gary Bennett to exchange hints and tips etc.

Help wanted

WORDSTAR release 1.0A help can anyone tell how to print files more than one at a time. Helton, Burnt Hills, Thick Hollins Meltham Huddersfield HD7 3D8.

HELP anyone know the address or telephone of Shugart please phone Nigel 0293 (Crawley) 513354 anytime.

Wanted

WANTED Atari SC1224 and/or SM124 monitors in good condition tel: 0469 60009.

WANTED for C64 disk "Hunt for Red October" must be original must have manual £15 waiting.

FREEZE machine utility disk V3.0 or later for C64. 64 Ashbury Avenue, Bangor Co. Down N. Ireland BT19 2TH.

MUSIC X - Wanted a manual for the Music X complete package also any IFF samples for the Amiga also cheap software for sale - Mike 0742 686977.

ACID music for Amiga wanted and graphic. Disks returned with extra blank free. Only new stuff to: Steve, 26 Reeve Road, Holy Port, Maidenhead, Berks, SL6 2LS.

WANTED does anybody have an Epson FX80 printer manual. Please ring 0992 467398 and ask for Franco.

WANTED user manual for Citizen 120D printer. Tel (0925) 227142 and ask for Phil.

ST/E contacts wanted into games midi synths Medway Dompey Automation to swap programs phone (071) 4852012 or 46 Twisden Road, London NW5 1DN BEN.

2400 Modem external wanted - must be BT approved and Hayes compatible will offer £550 of ST Software and 1200/1200 modem: Rob, 7 Powis Grove, Kenilworth, Warks.

IS there a C user group out there? If so phone Shane on 0638 665194. Also Lattice C V3 wanted. for the Atari ST please.

C64 help! Micro mud program and data discs wanted to buy, hire or loan. Mine are damaged. Tim Proctor 12 Judilee Drive, Thornbury, Avon B512 2YG.

SAM Coupe public domain wanted for new and growing library all disks/tapes returned if with S.A.E. send to B. Atkinson, Cobourg Street, London NW1 2HB.

MEGA drive carts wanted. Will pay £15 each. Write to Kenny 62 Carrol Cr., Ormskirk, Lancs. L39 1PZ.

HELP wanted: does anyone know anything about a Sirius computer? DOS and manuals require will pay reasonable price - contact Paul on 08244 432.

WANTED: Rainbird's Advance Music System for Amstrad CPC and help on direct screen memory accessing in M.C. (pixel scrolling, collision, detection etc.) Nick, 7 Hawkswood Avenue, Frimley, Camberley, Surrey GU16 5LH.

WANTED Amiga 500, good price paid. Must live somewhere in South Wales or nearby. Phone David (0633) 893543 after 4.00pm. Thanks.

1581 disc drive wanted for C128 computer - phone 0293 882016 evenings and weekends - ask for Vic.

AMIGA 500 wanted for a level student. Can pay up to £200. No extras needed. Tel (0274) 876154 evens.

WANTED: cheap parallel 9-pin printer about £30-£40. Nothing fancy, as long as it works OK. Phone Paul on: 0298 24147 evenings.

A & B ENTERPRISES

41 MOYSER ROAD, LONDON, SW16 6RW

**WE BUY AND SELL
(NEW USED OR SUPPLUS STOCKS)**

THE BEST PRICES FOR THE FOLLOWING DEVICES

IBM PS2'S, COMPAQ'S, TOSHIBA'S
IBM COMPATIBLES AND APPLE MAC
COMPUTERS, FAX MACHINES,
PORTABLE COMPUTERS,
MATHS CO PROCESSORS, PERIPHERALS
AND PRINTERS

TEL: 081 664 6477 FAX: 081 664 6458

SPECTRUM +D disk drive interface manual needed. Also spectrum 48K elite with all manuals. Spectrum 48k+ needed with tape recorder phone Simon at 0705 750483.

MODEM and midi interface wanted for the Amiga I'll pay up to £65 for modem and £15 for interface: Spyros 14 Aristovouliou Street, P.S. 246, Limassol, Cyprus.

QL software, games or business also any blank micro cassettes to help in resurrecting mothballed Sinclair QL - phone Steve 0535 274414 evenings.

AMIGA hard drive wanted - call Simon at 0705 750483, or write to Simon Brown, 82 Highland Road, Southsea, Portsmouth, Hants, PO4 9NF.

WANTED music X for Amiga. Also wanted Synth module to complete midi setup. Also HWTs/tips for Music X call Paul (0242) 236428 or write Flat 1, 2 Bayshill Road, Cheltenham.

4 Way serial card for PC XT wanted - phone Mold 3440 evenings.

WANTED Scart Sega Megadrive will swap for a Pal version or sell for £140 - phone Peter 0602 299435.

AMIGA A500 wanted. Must be in good working order. Software not essential. Pay around £200 depending on software. Tel Leeds (0532) 871971 after 6.00pm.

WANTED 3 and a half inch external disk drive with built in PSU for Amiga. Must be good condition - cash willing. Tel Gary on 0473 713715 between 6-9pm.

BROKEN Amiga A500 wanted to attempt repair of mine. Any condition considered or any accessories. Call Bill 081 3015538 evens.

AMIGA A1060 Sidecar System disk wanted. Also any help and tips greatly appreciated. Tony Redcar (0642) 470144.

WANTED: Amiga hard drive any size will swap 2 second disk drives and loads of new original software. Ring Jason after 6.00pm anyday 0782 266964.

AMSTRAD PC2086 50 mono plus Epson LQ400 or similar combination for a start in computing write. Mr. W. Clelland, 130 Alexander Ave., Twelchar, Kilsyth, Glasgow G65 9RJ.

SLOWMO or similar item for use with Spectrum. Also Spectrum 2 NOT 2A working or not but must be cheap - tel 0642 598935.

WANTED by O.A.P. hard disc drive for BBC Master 128K. Also 512K upgrade must be good and low priced. Webster, 6 Landing Close, Barby, Selby, N. Yorks.

WANTED: All issues of TV gamer - Phone R. Back-Holzer, 52 Pinehill Road, Crowthorne, RG11 7JR.

HELP please anyone have a copy or Mercenary for sale. If so contact Darren on St. Albans (0727) 35249 after 6.30pm. No copies please.

WANTED: Any details for G.E.C. Information Systems Modems, Manuals or specifications if possible. Contact Stuart Nicolls, 20 Linnburn Road, Longton, S-O-Y, Staffs, ST3 5RW. Tel: 0782 323329.

WANTED info on CBM modem specially circuit. Phone Nigel 0293 (Crawley) 513354.

AMIGA wanted swap for Atari 1040STFM, 2nd. drive, £1000 games. All boxed. 1 yr old. For more details contact Sharkey 0476 76979 or will sell at £600.

AMIGA quick swap PD Scheme. Sned disks containing any PD, State Preference and I'll send something different back. Him Blackier, 17 Bellevue Terrace, Lancaster LA1 4TX.

ATARI SM124 Mono Minitor pay £50-£70. Tel: 0763 87286.

AMIGA computer etc., will pay above or below £250 depending on extras. Delivery needed to the Eccleshill area at Bradford. Ring Stuart (0274) 635212.

AMIGA A1060 Sidecar system disk wanted. How do you get DFO to talk to JF:z:??? - Tony Redcar 470144.

WANTED ST or Amiga mouse must be cheap, working or not working. Tel Basildon Essex (0268) 417775 evenings.

AMIGA swap DWC point 2 and Voyager (brand new) and escape from robot monsters for Photon Point 2 - contact Nik 092576 4907. Also contacts wanted for Amiga.

AMSTRAD 6128 colour tele monitor required - only will pay right price for offers. Carl on 0244 544498.

WANTED ST. contact send list. Thuan at 14 Deepmoor Road Stechford, Birmingham B33 8ET. 101% replay.

COMMODORE modem - best offer or exchange for original disc programs with manuals - wanted - manual/copy for Seikosha printer SP180 VC. Please phone 021 444 6460.

STOCK control program wanted for Amiga 500 must be able to zero stock levels and free stock coding up to 15 characters - Paul 0332 760353.

LOGO wanted for Atari ST 081 3405231.

OLIVETTI L1 M20 St computer and a quarter inch discs DM5055 printer any information please. I have no manuals or bootup disc - any help gratefully received. Newmark (0636) 702196.

PHILIPS MSX2 8280 computer and software wanted urgently. Good price offered. Tel Douglas 0292 79136.

WANTED: MUD for C64. Must be whole package inc. MUD book. Good price paid. Contact M. Smith, 3 Freni Way, King's Lynn, Norfolk PE30 2LU.

DESPERATELY wanted copy of Skweek for Amiga. Cash paid. Please help! Contact Peter 0532 860969.

MEGADRIVE wanted golden-axe shinobi NZ story Tatsuj. I have forgotten worlds and super hang-on. Swap one for one or all four for 14 Amiga originals. 061 6205350.

◆ Services

ATARI ST data cables to connect serial or parallel printers and modems, excellent quality. Contact Gary on 0532-701760 evenings only please.

ATARI ST PD swaps wanted. Demo's or PD stuff for exchange. Please state taste and type of machine. M Burns, Flat 4, Moreton Court, 212 Dover Road, Walmer Deal, Kent, CT14 7NB.

OWN A CPC464? Then write to DEC Soft PD, 175 Barnsley Road, Barnsley, South Yorkshire. Enclose a blank tape +25p to receive a starter pack - PD newsletter and list of games. Free gift to the first 50!

◆ For Sale

AMSTRAD 1640 colour 20 MG HD mouse, keyboard mint condition DOS disks etc. £590.00 no offers sorry. Tel 081 5714537. Serious callers only first come first served!

PSION MC400 laptop, boxed with system disk, operating and programming manuals, registration cards, 256K disk. Mint condition, month old, need cash. £625ono - phone Bobby (0908) 371995.

AMSTRAD PPC640 20mb fast hard disk by stratum and backlite up grade, c/w mono monitor star LT10 colour printer, deluxe carry case. All under warranty boxed and VGC £900 (0446) 744140.

ALL COMPUTER HARDWARE AND SOFTWARE WANTED FOR CASH OR EXCHANGE
NOTHING REFUSED!!
071 727 0424

GOODBYE everyone I used to know on leh St. I am now getting an Amiga Dai Snuffs - I will be in contact soon. Matthew.

DREAMERS Vol 1 Disk. Packed with news, reviews, tips. Pd software and must more only £2. Send to: Paul Harhen, 43 Boyds Walk, Dukinfield, Cheshire SK16 4AX.

IBM PS/2 model 55 60mb hard disk drive, plus Canon LBP8MK3 laser printer available for rental - phone Mark 0225 314796.

PD software at 25p. if you supply the disks with SAE or free if you swap PD that I don't have. Phone (0705) 462140 for details.

STING Public Domain Library, for Atari ST. send an SAE for your free disk catalogue to: Whitefield Square, Westvale, Kirkby, Liverpool, L32 0UT.

AMIGA 500 half meg ram upgrade no clock £25 or swap for Amiga items. Tel 0473 713715 between 6-9pm.

SCULPT 3DXL ray tracing software for Amiga. 1MB memory required. £90 Boxed original. Richard 081 2913593.

C64 disk drive data cassette modem, parallel interface, disks joystick, good condition £280 ono. Please ring 081 3985167.

ATARI 520STFM as new £235, 1040STFM £345, wanted 27256 Eproms any qty. 10-200 also Amiga A500 wanted or now working Atari Mega St. (0495) 272092.

IBM five and a quarter inch games code name "Iceman", F19, flight Sim.4, leisuressuit Larry 3, £18.00 each, finest hour, kings Quest 4 Ultima VI, 688 Submarine, Populous, Simcity £10.00 each (0403) 50066.

34p
INC. VAT

3.5" DSDD INDIVIDUALLY WRAPPED DISKS

100% certified error free
Includes attractive labels & VAT
Add 1p for credit card orders
40 cap disk box: £3.99, 80 cap: £4.49
14" monitor swivels: £11.50, Dust cover: £3.95
Postage - add £2.95 per order

Universal Overnight Distribution Ltd.
Enterprise Centre, Unit 26, James St, Carlisle, CA2 5BB.
Tel: 0228 42373 ext 53. Fax: 514484

PLEASE help info on Olivetti computer LIM20 ST printer DM5055 any manuals. 5 and 1 quarter inch discs will pay even boot up disc. Smyth, 3 Fleming Drive, Newark, Notts.

WANTED: Batman the movie for Atari 520 STFM will swap Batman the Movie for Amiga - phone (0706) 522354 from 6.00pm onwards.

WANTED PSION MC400 will pay cash on delivery - phone Mr. Jabbar 0742 472411.

WANTED 3 and a half inch external disk drive with own PSU for Amiga and on/off switch etc. Cash waiting tel: 0473 713715 after 6.00pm. Ask for Gary.

DISABLED Amiga owner with limited budget would like any donations of demos or software, anything appreciated. Contact John 86 Prince Street, Pleck, Walsall, W52 9JH. Thank you.

ANYONE using Star STX80 thermal printer and willing to lend me the manual? I need codes for underline etc. or else please send large hammer. Contact 0524 418806.

DISABLED pensioner requires 1751 or other disk drive reasonable price please, plus postage. Urgent. All replied. Utilities (disk cartridge) speech synthesiser. Washbourne, 29 Lynworth Court, Cheltenham.

WANTED Formation soccer for PC engine pay £25-£30. Also Amiga games for sale old and new. Ring Ed for details 0308 68100.

SWAP my commodore 4022 printer for Amstrad MP2 modulator or Commodore C64 plus games spare PSU etc. for 464/664 monitor (green or color) Genuine replies only. Geoff Willett, 45a Weir Pond Road, Rochford Essex S54 1AH.

NEW JERSEY NETWORK

Are you a talented programmer or graphic artist, (young 15-25), looking to write games? Or do you have a completed game for publication? We are very small, but very enthusiastic.

Contact Rob (0795) 872280

X-COPY 3 Tetra copier (play Tetris white copying) and loads more utilities: send £1.50 and SAE to Philip, 24 Shyshack Lane, Baughurst, Basingstoke, Hants, RG26 5NH.

HEY all Amiga users!! New PD Library starting up with demos, Utils, Fish etc. SAE for list to R & G PD, Melmount Gons, Strabane, Co. Tyrone, N.F.

AMIGA Devpac2 - beginners do you require source code examples or help send SAE plus 50p. and disk to J. Matthews, 37 Meadows View, Marford, Wrexham, Clwyd. LL12 8LS.

PD Software for CBM 64. Disks and cassettes. Utilities, demos, music fast service. Just send SAE for list to: PDW, 42 Chesterfield Road, Worthing BN12 6DD.

PD hundreds of titles available totally legal - send for list to Alan, 115 Normanton Road, Oakridge, Basingstoke RG21 2QN. SAE.

CPC6128. Software scrabble £5, masterfile III £8, MASS labeller £8, b/w monitor £15. Phone Andrew 0222 770527.

AMSTRAD CPC464, colour monitor, TV mod. Mo-1 with a good and large selection of games only £150. Contact James (0705) 664684.

AMIGA A500, 512K exp, 2nd D/D, 50mb HD/drive, colour monitor, Star LC10 colour printer. Amos, pagestream, kindwords 2, 15 games, 118PD disks, 300 blank disks, 6 boots and magazines, £1200 ono - tel: (0670) 510120.

BBC-B OS 1.2, 40/80 Watford disk drive, cassette recorder, cumana touchpad, joystick, wordwise plus, wordaid, dumpout, acordin DFS, software, eight books, all very good condition, £360 ono - telephone Eastbourne 34348.

PHILIPS NMS 8245 MSX2 computer nemesis 1.2.3. Gryzor, space manbow, over 800 games and programs, 3 large disk boxes, joystick FM-Pac cart. Bargain £350 - tel. Ray 0533-771381.

BBC'B' software, titles includes Star Wars, Summer Olympiad, Barbarian, Superman, Wizard etc. Watford Speech, Light pen with software, manuals. Worth £450 - sell for £200. Tel 051 4803212.

3 AND A HALF INCH DSDD disks surplus from bulk purchase 250 disks. £110 the lot. 50 for £25. P&P included - all disks certified. Call Stuart on 0270 768209.

AMIGA 2000 monitor printer hard disk, 2nd drive video camera graphics and sound software 300 plus utility disks, games and more. £2800. Tel (0933) 50691 after 5pm.

AMIGA A-500 Batman pack, complete, only five months old with master sound sampler, some PD and blank discs, disc box, Tenstar pack etc. £350 ono. (0272) 685251.

ATARI mega ST4 with SM124 mono monitor and external UHF modulator for TV £650 - phone Alan on (Basildon) 0268 545573 between 6-8pm.

MANISMANN talley Pixey 3 plotter as new condition, boxed with manual £125 ono. Tel (0222)471217 daytime, (0222)497853 evenings.

AMSTRAD PCW 9512 printer, Fortran manuals, locoscript, word processing, spell checker, mail merge. £350 - call 0527 - 32599 after 6.00pm.

ATARI 65XE and 800XL. Both need new K/boards, otherwise work - £30 for both. Phone (0621) 782826 - ask for Darren.

AMIGA AMOS the fantastic, new basic language for the commodore Amiga. Original software and manual. Boxed as new only £25. Tel 021-7496176.

PRINTER - Sharp plotter printer, brand new, never been used Model MZ-IP16, small with colours. In box with instructions £25. Tel (0602) 704993.

ATARI 520 STFM. Kempston mouse, joystick, loads of games, demos 'N' PD, good cond.. Boxed with over £1000 - offer £330. Tel Northwich (0606) 46769.

AMSTRAD PCW 8256 personal computer word processor, includes monitor, keyboard, printer, discs, manuals. As new condition - can deliver locally. Save over £100 RRP. Bargain £250. Contact 0274-580115

FM MELODY MAKER for Atari ST, by Hybrid Arts, includes free leads, developers manual and software £40. Phone Simon (0203) 415806.

GREEN monitor with QL lead £40. Contact Tom 09920 460121 Herts.

SPECTRUM hardware: Alphacom thermal printer, excellent condition £20. Kempston joystick interface £6. Amstead CPC464, green monitor, mouse, speech synthesiser, £200 worth of games. : £250. Contact 091-2654069.

LYNX handheld console for sale. As new with California Games, Chips Challenge, Zendacon, Blue Lightning. All boxed inc. power supply. Only £180. Phone (0942) 897260.

ATARI 520 STFM 1 meg internal drive £400. Games, mouse, joystick, explorer, disc owners manuals, PD discs. Sell for £250. Contact 081-6911561.

AMSTRAD CPC 6128, 2 colour monitor, multi face II, plus lots of games and joystick £240 ono. Phone (0322) 342347 Dartford. Buyer Collects.

COMPUTER REPAIRS

We specialize in the repairs of Home & Business Computers, Monitors, Printers, including **AMSTRAD, COMMODORE, ATARI, SINCLAIR**, etc. Competitive fixed prices on most models. All work carried out by fully trained staff, and guaranteed for 3 months. For **FREE** estimates and further information ring: (0582) 573262

MICROPOINT COMPUTER SERVICES

34 Arbour Close, Luton, Bedfordshire, LU3 4AQ

AMIGA programs for sale. Amiga Kindwords, WP version 2.0 £25. Ocean New Zealand Story £8. Both excellent condition - Tel: (0636) 71275.

C64, 128 PRINTER. Star LC10 mono in error and will not fit Amiga or ST. £90 - phone Chris (04352) 3082 Heathfield E. Sussex.

AMSTRAD CPC6128 colour monitor, DPM2160 printer, programming book, joystick, loads of disk games and programs. Excellent condition. Cost £750 for quick sale - £250. Tel (0543) 257899.

SPECTRUM 48k plus lots of software, control stick and multi face - will sell for £70 ono. Tel Leeds (0532) 636904.

APRICOT WRITER 08 (rebadged Brother 1209). Thermal transfer, 45 CPS, parallel. Boxed as new £199. Ring Reading (0734) 869181.

APPLE MAC 512K, 2 disk drives, image writer printer, V21/V23 modem. £450 ono or will swap for ST or Amiga with monitor. Phone Gary 081-8986337 after 9.00pm or weekends.

288 ACCESSORIES. 125K Eproms and Ram packs £10 each. Eprom eraser £15. Mains adaptor £5. Carrying case £5. Tel 0403 783696 evenings.

SIM CITY for Atari ST £12 also wanted multiface ST must be in VGC - contact (0482) 806598.

CPC6128 hundreds of games, colour monitor, data on recorder, Multiface II plus light gun, mouse, disc drive, magazines and much more - 9 mths old. £350. Quick sale - phone (021) 3543493 after 600pm.

ATARI 1040 STFM, 1 meg d/s/d/d, 10 meg h/dive. Will split. Software extras £450. Tel 0202-733865.

ATARI ST & STE PUBLIC DOMAIN

After our recent shipment of American P.D. we guarantee you'll see programs in our library **YOU'VE NEVER SEEN BEFORE!!!** Send £1 or a blank disk now for our very latest disk catalogue.

THE OTHER PD LIBRARY

108 Kenmare Rd., Wavertree, Liverpool, L15 3HQ

TWO Atari SF354 single sided disc drives for sale. Both good condition. Offers. Contact Andy 0224 486636 evenings.

ATARI ST original software superbase personal £25. Kuma K-Spread £30. Hyperdraw, Hyperpaint £10 each, Lazer Squad, M. REads, Pop Quiz £5 each. All brand new unused. Auto dial modem £15. Contact 071-4852012.

LOADS OF GAMES for sale! All C64 tape from 40p. For list: Chris Ward, 778 Obelisk Rise, Northampton, NN2 8TP. Stamp or SAE helps! Please hurry!

AMIGA and lots of games with modulator and scart lead £300. BBC disk drive, double sided, double drive £70, viewsheet Rom £20. Tel 081-9545712.

AMSTRAD 1640 CD 20 meg hard disk. Manuals etc. £650. Phone Letchworth (0462) 684995.

CPC 6128 (disk) with colour monitor and manually AMX ART and mouse £400's worth of software, 3 yrs ACV mags. £390 ono. Phone (0862) 819462 after 6.00pm.

STSCANNER 'IMG' as new, £30, Blitz copier £10, Xenon II (orig) £5, lots of mags - offer? Contact Jeff 091 4383204 (Gateshead).

C64 GAMES for sale. Packs of 5 for £15 most games games cost £10 each. All originals lots to choose from. Also C64 keyboard £10. Contact 672029 (Bradford).

AMSTRAD CPC464 plus green screen monitor, few games and joystick. Only £100 Phone (071) 586-2146 after 6.00pm

COMMODORE +4 with power supply £25. Spectrum +2 with 1 game and power supply £55. Contact 081-9924736.

CVLS Phone Sheffield 0742 884183 open until 11.00pm

3.5" DSDD 1.0 meg disks 39 pence each
5.25" DSDD Coloured disks 29 pence each
postage & packing 7 pence per disk to a maximum of £3.50 postage

Cheques/P.O to **CVLS**, 92 Firtree Est, Thurgoland, Sheffield S30 7BG.

AMSTRAD PCW 8512 little used plus manuals, and mini office professional program. Must be seen to be believed £250 ono. Tel 0827 - 50167.

ATARI 520ST with 1 meg upgrade, colour and mono monitors, D/S and S/S drives, plus over 50 discs of software. All for only £325. Tel 0473-683517.

SPECTRUM Wafadrive, 8 128k wafers, music machine RRP £46, offers will split. Phone 0383 822930 after 6.00pm.

AMSTRAD CPC464 with colour monitor, 10mths old, excellent condition, price includes user manual, joystick plus £100 software. £230 ono. Phone 0980 - 43866.

CITIZEN 120-D 9 pin dot matrix printer - light home use only £70. Tel 081-6933109.

AMSTRAD PC1512 DD mono boxed as new with gem. Newsdisk DTP Box of 10 blank disks £395.00 - phone 081-5734754.

ATARI 520STFM 1 meg internal/external drives. £1,000 worth of games. Mouse mouse/master joysticks, mags, demos, worth £1,500 - sell at £400 ono. Tel 071-7913475 evenings and weekends.

PSION organiser XP model, 64k datapack, travel pack, leather case, manual. As new £110ono. May split or swap for printer (LCio or C120D) for A500. Contact Richard 061-4856580 after 6.30pm.

MUSIC shareware to exchange or sell on 5.25" or 3.5" disk for Amstrad 1512/1640. Send for free list - Fox, 34 Cottrell Rd, Eastville, Bristol, BS5 6TJ.

PUBLIC DOMAIN SOFTWARE AND SHAREWARE

Extensive ranges of Public Domain Software & Shareware available for the following Computers

IBM PC & COMPATIBLES
including AMSTRADS
ASAP £5.25

COMMODORE 64 & 128
£2.95 per 5.25" disk
COMMODORE AMIGA
£2.95 per 5.25" disk

COMMODORE PLUS
£2.95 per 5.25" disk
APPLE II RANGE
£2.95 per 5.25" disk

APPLE MACINTOSH range

ATARI ST

APPLE II RANGE

KINGSWAY COMPUTERS
72 Glencoe Road, Sheffield, S2 2SR. Tel: 0742 750623.

AMSTRAD CPC 464, modulator, mouse and accessories, multiface II, loads of magazines, over 200 games. Worth £900 will swap for Sega master system. Phone (0502) 518440. Now!

BARGAIN! Commodore 64 CZN, 220 games (original) mouse, graphics, software, dust covers, books manuals, programmers aids £150 or can split. Call David on 091 2501269.

COMMODORE C64C 1541 disk drive, colour monitor, Commodore printer, software, freeze frame, MK V joysticks, new power cartridge. £300 the lot. Tel Jon (0305) 786853 (Weymouth).

SEGA Megadrive II, games, 2 joypad £420. Megadrive games for sale or swap - Final Blow, DJ Kid, Ghostbusters, New Zealand Story. Wanted. Phone 081-2009628 after 5.00pm.

AMIGA 500 for sale. Together with Sega M/s 22" c/tv, new Epson printer, lots of Amiga PD and Amstrad tape, original games and magazines for all formats £750 - price neg. Contact 071-2546141.

SPECTRUM +2, loads of games, £80 ono. Phillips Cm8833 monitor £150ono. Amiga games including Leaderboard, Battlechess, Opwolf, 30 Pool, £10 ono each. Phone Sean 0293-28291 evenings and weekends.

CBM PET computers for sale. Phone Simon on (0530) 412415 or writer to: 1A Castle Flats, South Street, Ashby-De-La-Zouch, Leicestershire. LE6 5BQ.

COMMODORE 64 plus CZN, joystick, alignment tool, reset cartridge, games include Microsoccer, Untouchables, Batman, Turbo Outrun, Megamix and loads more £285 ono. Phone Billericay (0277) 657485.

AMIGA 500+ 1 meg, 2nd drive, Datal action replay cartridge, software £450. Star LC-10 colour printer £150 inc. cables, etc. Contact Glenn (0932) 567614.

AMSTRAD CPC 464 modulator Romboard protex/pascal roms. £200. Software sell for only £150. Excellent Christmas present. Tel 0757-705018.

AMSTRAD CPC 264 software, 28 blank tapes £6, Electric studio MK II light pen £10, mini office II £8. Joystick Quick Shot II £6. Printer cable £5. Contact Wrexham 264204.

ATARI 8-bit software for sale. For list please send SAE to Robert Fry, 44 Staplegrove Crescent, St. George, Bristol, BS5 8

QUICKJOY masterboard joystick micro-switched etc. £10 or swap for Amiga items. Tel 0473 713715 between 6-9pm, only ask for Gary.

AMIGA software for sale. HiSoft basic £29. Bomber £9, Falcon £9, Sonix £15, Populus £9, Devpac 1 £12. Phone 0342-314204 evenings and weekends.

C64 BUSINESS SOFTWARE Gemini cashbook accounting £15, Gemini final accounts (standalone or integrate with above) £10, cassette and disk both. Contact 021-3515556.

ATARI 520ST upgraded 1mb fully boxed with manuals, mouse etc. must arrange collection, quick sale wanted hence £200. Phone Jon 081-6568079.

SPECTRUM 128 +2, good condition over £350 of software, two joysticks and Kempston for £140 ono. Please phone 0493-665340.

AMSTRAD CPC 6128 with colour monitor (Amstrad CTM 644). Built in disc drive and also additional cassette, software loader, 10 blank discs, cables, joystick, over £250 worth of games, extra books, computer covers, worth over £750 will sell for £349.99. Contact Jeremy 081-2041086 after 5pm.

QL 640K colour monitor. Two joysticks, Psion programs, editor SE flashback lightning, manuals - too many to list the programs. £225. Contact 081-9485477.

ATARI LYNX, brand new, games, guaranteed £150 ono, Nintendo Gameboy pack, brand new, games, case guaranteed £110 ono. SEGA Megadrive (SCART), games, mint condition £180ono. Contact (0457) 873062.

ST AMIGA format back issues 10-11-12 with disk £3 each. Phone after 4pm (0274) 736586 or write to Zubair, 56 Seewell Road, Bradford, BD3 9TD. Asst excellent condition and original.

ATARI 520STE power pack, plus fast basic, midi PD, Winter Olympiad, Out Run, Star Wars, over 25 magazines, with disks, all for £340 ono. Tel: Henry 051-3398958.

IBM PC (genuine IBM). Twin 5 and aquarier floppies, 512k, mono monitor, 102 key keyboard, printer, wordstar, open access, works, printmaster and much more. Excellent £395 ono. Contact 091-5864357.

SWAP 1040 ATARI STE 5.25" FDD, mono monitor, approx 600 disks for best PC compatible offer with HD. Write to Pete: 30 Baker Street, Irthlingborough Northants, NN9 5PR.

DISCOVERY DD plus extra drive £85. Microvitec 1431MS colour monitor £65. Tasman parallel printer interface £7. Spectrum+2 (grey) £70 or all for £210. Harry on 0203-612812

SPECTRUM+2 128K with joystick, mouse, Art Studio tape and over £200 worth of games all in VGC. £170 ono. Tel. 0784-450487 after 5pm.

BBC B Opus DDOS, 3" drive, Watford ROM/RAM board with 64K RAM, 16k CMOS RAM and battery. Joysticks, Wordwise, Wordwise+, Intersheet, Graphics, Toolkit, ROMS Games and German cassettes. Adv manual. £300 or will split. Tel. 0695-578980

CMB 64 plus cassette, 3 joysticks, loads of games and Music Maker Games include Ninja and Barbarian I & II and others £200 the lot. Tel. 0484-648606

ATARI 800XL with controller card, 1050 disk drive, 75 games/utilities disks, full documentation, Page Six magazines, original manuals. £160. Tel. 0799-41599 (Saffron Walden, Essex)

PCW PROGRAMS Fleet Street Editor with extra fonts £30, Plan II £5, Micro Collection £25, Supertype for LocoScript 1 £10. Tel. 081-578 7785 (Greenford).

FED UP with inferior computer games? Long loading times? Unreliable copies? Then buy my amazing Sega video entertainment system (all games 80%+ rated) Details on 081-578 5026

PHILIPS CM8533 colour monitor, Scart and composite connections, perfect for Amiga or Atari ST, only £100. Contact Norm after 8pm on 071-241 1936

ISLAND DIGITAL SOUNDS

Massive discounts on new and ex-demo products
Roland, Cheetah, Yamaha, Casio, Voyetra, etc.
Amazing offers in our end of season sale

SEQUENCES	IDS	RRP	HARDWARE
Music X (Amiga)	£75	(£228)	Voyetra V-411 Midi Interface (IBM) £164 (RRP£184)
Virtuoso (Atari ST High Res mono only)	£85	(£299)	Samsung Multi Sync Colour monitor C/W VGA Card (IBM) £375.00
Texture (IBM)	£75	(£199)	Samsung Mono VGA Monitor C/W VGA Card (IBM) £99.00
Voyetra ST 3 (IBM)	£295	(£368)	Sound Blaster (IBM) £199.95

A wide selection of software and hardware available for Atari ST, Commodore Amiga, Apple Macintosh, IBM.

Ring us last - we guarantee to beat any price advertised in this magazine (stock items only)

RING OUR MAIL ORDER HOTLINE ON 0705 464704
Hayling Island, Hants, PO11 9RJ

MEGADRIVE OWNERS latest and greatest video including ints and tips Only £5. Send cheques or PO's to Leslie Cond, 28 Eastham Road, Billestey Birmingham, B13 0HD.

SPECTRUM books for sale. From hardware to learning and using machine code. All in excellent condition. Phone 0709-385879 for details and ask for Richard.

BBC MASTER 128 40/80 track Cumana disk drive. Microvitec colour monitor. Data cassette recorder, Little used. £515 Basingstoke 781408

DEVPAC2 for Amiga, original disks and manual, as new. £25. Call John on 0276-63311 ext. 3258 during office hours.

SAM COUPE 256K computer for sale. Internal disk drive, new ROM + DOS. New technical manual. Defenders game. Spectrum games. Only £220 ono. Tel. Stuart on 0847-65210

SPECTRUM +3, joystick, tape games, blank disks, all leads, PSU. 2 years old. Now you can't beat £100 the lot. Call Carl on 02357-3573

AMOS THE CREATOR for Amiga. Excellent condition, only used twice. Cost £50 will sell for £35. Tel. 0224-868550 or write to 5 Binghill Road North, Milltimber, Aberdeen.

PENMAN PLOTTER very little used. Complete with pens, manual etc. Cost £230, offers around £150. Tel. 0983-79462

CBM 64 computer, 1541 disk, printer, datasette, software, books, sensible offers. Phone Nigel on 091-274 9567

ATARI 1040STFM 1Mb memory, 1Mb drive, mouse, joystick, 30 3.5" disks - all as new. £345. Wanted 27256 EPROMS, any quantity Tel. 0495-272092 ask for Mark.

AMSTRAD PCW8256 with printer, Locoscript II, serial and parallel interface, all manuals, as new £350 ono. or swap for Amiga A500. Tel. 0734-698067

SPECTRUM+3 recorder, 100+ games, 11 disks, GAC, M/Code course, books, ass/dis, WP, tape to disk utils, PD progs, 40+ mags £200 ono. Phone Ian on 0506-53058 after 8pm

CPC464 with colour monitor, joystick, manuals, loads of games, books all for £180. Atari games console and games thrown in FREE. Tel. 061-723 2818

COMMODORE 64/128 printer for sale. Including ribbon, paper, p&p. Only £90 ono. Tel. Paul on 051-334 1488 or leave message on machine.

ATARI 520STFM with original games. A good working joystick and five formatted disks. £300. Tel. 0753-75796

20MB HARD DRIVE for ST - £200. Various boxed ST games. Phone for list 0225-333789.

QL COMPUTER and Philips 12" green screen monitor all in original packaging. Selling together for £90. Tel. 0787-312593 (Sudbury, Suffolk)

ST FORMAT magazines. August 1989 July 1990 complete with original disks £25. Tel. 0206-395168

AMIGA software. Jinxter, Interceptor, Barbarian II, £5 each. All boxed. Tel. 0703-676949 after 7pm.

AMIGA genuine RF shielded A501 memory expansion £55. Why buy a cheaper made alternative? Tel. 0703-676949 after 7pm.

BBC MASTER 128 Viglen cased 40/80 track drive, hi-res colour monitor, loads of software/ROMs £400 ono. Redundancy forces sale. Tel. Chertsey 0932-566435

HIGH QUALITY AND PERFORMANCE 486 AND 386 MOTHERBOARDS

AT/386/25 MHz	OK.....	£450
AT/386/33 MHz	OK Cache.....	£825
AT/486/25 MHz	OK Cache.....	£1800

VGA available on request. 12 months warranty and telephone support. (Prices exclusive of VAT and carriage)

BRITEC LTD

26 Avon Road, West Moors, Dorset, BH22 0EG
TEL: (0202) 873421 FAX: (0202) 873421

ACORN Electron, plus 1 dual joystick, 34 disc interface, 3.5" drive, over £100 software, £400 new, will sell £200. Contact (0382) 77872.

AMSTRAD CPC6128 5.4" second drive, multiface, £500 of games, serious software, includes protex, qualitas, GAC, Ramdos, only £260, will split. Ring Craig (0924) 441661 9-5pm.

ATARI games: Flight Sim II, Player Manager, F16, Powerdrift, Steller Crusade plus many more. Call for details. All games are boxed. Contact Steve 0942-718261 after 7.00pm.

ATARI ST 520 FM powerpack, boxed as new, under guarantee plus additional games £350 ono. Tel: (Walsall) 0922-39280 after 6.00pm.

SPECTRUM 128K with multiface, CD games, and games, sell for £70 ono. Also Sam Coupe with disk drive and games sell for £170 ono. Phone Portsmouth (0705) 291949.

PCW 8256 plus memory upgrade, compact desk, Locoscript 2, Locospell (no instructions), two games, blank disks, boxed, mint condition. Only £299. Tel: 091-3840703 (Durham).

AMIGA A501 512KB ram exoabsuib card, duplicated present. Unused - Bargain at £80. (Free Dungeon master IBM RPG). Tel: Brian 0274-574187 (Bradford)

AMIGA Action REply cartridge £40. AMOS game creator £30 was £50. Tel Julian 0742-438542 after 5pm.

AMSTRAD CPC6128 Colour monitor, disk drive, DMP 2000 printer, Multiface 2, Protex ROM, Pandora, disks, tapes, cassette recorder, books, magazines, leads. £650 ono. Tel. 0642 after 6pm

SPECTRUM+3 128K for sale. Excellent condition, with disk drive. Including £175 worth of software, Multiface 3 and joystick. Only £225 ono. Tel. 0204-20621 after 5pm.

SEGA MASTER system + light gun, 5 games incl.; Shinobi, Thunderblade etc. VGC and boxed £70 no offers. Tel. Michael on 07742-365243 after 6pm.

SPECTRUMS for sale, plus hardware, software, books for various micros. SAE to Mr Jones, 2 Town Mead, Oakford, Devon, EX16 9EW.

AMSTRAD CPC464 with colour monitor, disk drive, speech synthesizer software, all manuals and magazines £400 ono. Tel. John on 0383-737474

ST GAMES including; Kult, Dungeon Master, Chaos Strikes Back, Carrier Command from £2 - £10. SAE to M Norton, Colindale Nurses Home, Colindale Hospital, Colindale, London, NW9.

AMIGA power supply, Commoore brand, full working condition £25 including p&p. Phone Barry 0438-365188 after 6pm.

ATARI 520ST 1Mb drive, mouse, software, manuals. Unused £280 ono. Tel. 0767-680253 evenings.

EUROMAX Racemaker joystick (yoke) £15 or swap for other Amiga items. Tel. 0473-713715 between 6-9pm. Hi Centronics (wrench) (viper).

AMIGA ACTION REPLAY cartridge, new, boxed, £45. Freezes monitor etc. First cheque gets cartridge, late ones returned. Send to J Smith, 45 Maplecroft Crescent, Sheffield, S9 1DN.

COMMODORE 8023P printer with manual. £135 ono. Tel. 021-358 5418 after 6.30pm weekdays.

AMSTRAD 6128 colour plus printer, software and books, genuine bargain must sell £350 ono. Tel. 0328-46915

AMSTRAD PCW 8512 with Mini Office Professional + 7 blank branded disks and case. £250 for the lot. Call Tommy on 081-852 8578 after 6pm.

AMSTRAD 6128 colour monitor and TV. Also mono monitor plus loads of software £275 or will split. Tel. 0793-610325 (Swindon) anytime.

SEGA MEGADRIVE (Scart) with eleven top titles. Everything boxed. Sell for £320 ono. or swap for Super Grafx with games. Tel. 0306-885003

ATARI ST games Stac, Pirates, Gunship, Scrabble, Starglider 2, Balance of Power - all with original docs etc. £45 ono. Tel. 041-632 9903 after 6pm.

MSX-2 Philips NMS8245 - complete system. CM8833 monitor, 37 games on disk/cart, mouse, DSDD, MSX printer, datacarder, communications and business packages - £550. Phone for details on 0642-564932

MSX Toshiba HX10, HX-564, Wordpro, Computermates, 'MSX text/cards', cart games including 1942, Nemesis 3, Carls, programming books/mags, joysticks, datacarder £100. Phone for details on 0642-564932

TRADE BINATONE midi hi-fi with CD player and compact disc for Atari STFM or STE or Amiga. Cost £300 - contact Lee on 0226-758256

OLIVETTI PR15 PRINTER for sale £75 ono. If your interested call Andrew on Preston 0772-314947 anytime

ST GAMES Thunderbirds £9, Custodian £8, Orbiter £10, Spitfire 40 £9, Strikeforce Harrier £9, Tai-Pan £8, Exolon £7, Championship Waterskiing £6, The Running Man £10. Tel. 0705-462140

SHARP IQ7000 with language translator and thesaurus/dictionary cards £150. Tel. Steve on 0892-662698 evenings only.

SPECTRUM+ complete with joystick £30. Alphacom printer c/w 10 roots £55. Microdrive expansion kit c/w two microdrives £55. 30 microdrive cartridges £50 or all for £170. Tel. 0983-402273

BARGAIN OFFER Atari 8-bit 65XE. Some games, cartridge tapedeck, joystick - take it off me for £70. Bob, 43 Kingsway, Newcastle, Tyne & Wear, NE4 9UJ. First reply C.O.D.

NEW AMIGA MOUSE for sale only £15. Also Amiga modulator only £10. Phone 061-338 5566 after 4pm and ask for Richard.

ATARI 520STFM with 2Mb double-sided drive. Mint condition with boxes. Sell for £220 ono. Phone Paul on 0272-652754 after 5.30pm. Quick sale needed. Phone Now!

PC ENGINE (PAL version) with 2 cartridges in mint condition - sell for £160 ono. Phone Paul on 0272-652754 after 5.30pm. Quick sale needed. Phone Now!

PC ENGINE with latest PAL x2 adaptor plus three games for £95 incl. p&p. Phone 0222-487794. Ahmed, 32 Boverton Street, Roath, Cardiff, S Wales, CF2 5ES any time. Hurry!

EXMOOR

The world of the Soaring Buzzard, of the Red Deer, of Lorna Doone and the Exmoor Pony. And now the home of Exmoor Software Public Domain library for the ST. - a library that is different, where it's not the disks that are listed but the individual programs. You choose what you want and we make up the disks accordingly. Send S.A.E. for full details

EXMOOR SOFTWARE

Queen Street, Lynton, Devon. EX35 6AQ

Full range of Budgie Licenceware also available

SECOND HAND software for ST old and new titles from £3. Write or phone Robert Scutts, 18 The Plantation, Blackheath, London, SE3 0AB. Tel. 081-852 3575

ATARI ST USER June 89 - June 90 £5 (No cover disks). ST World Sept 89, Dec 89 - March 90 - £2. If interested please phone Philip on 0242-251556 between 5pm-8pm.

SMARTWARE II Brand new, complete with all manuals, on 5.25" disks best integrated package money can buy. Only £250. Tel. 0323-893294

AMIGA half meg upgrade, with clock, mint condition, only £30. Phone Barry 0438-365188 after 6pm.

I S DIGITIZER sampling package, Atari ST £35. Timeworks DTP £35, Gunship, FOFT, K Spread, K Seka, Deflektor £5 each. Also Protext, Scrabble, GAC for CPC464 £25 the lot. Tel. 0633-216400

HEWLETT PACKARD colour paintjet printer and pagesetter V2 £600, worth £900. Call 0203-316420

SPECTRUM+2 for sale £100. 3 joysticks, plenty of games, Monopoly, Man Utd, Italia 90 and more. For details ring Debbie on 061-737 3467 between 9am and 4pm.

COMPLETE SPECTRUM bulletin board system (includes Micron software, manual, auto answer modem, interface one, 7 microdrives and microdrive cartridges) £100. Phone Stuart on 051-546 4640

INTERNAL DISK DRIVE DS/SS for BBC/PC £30 also DS/DD faulty £15. Microdrive carts £2 each. Remote control joystick for 48K Spectrum £12. Tel. 0642-598935

C64C C2N, Oceanic disk drive, sound expander and cartridge, loads of games and utilities on cassette and disk. All boxed as new £200 no offers. Tel. Manchester 773-6455

ATARI 1040 SM124 Loads of software £375 ono. plus brand new SM124 £75 and clock card £18. Tel. 0902-772141 ask for Pete.

ST GAMES for sale, £6 - £10 Crack Down, Strider, Switch Blade, Rick Dangerous, Falcon, Populus, Xenon II, Speed Ball, Silkworm, Dragon's Breath, + 20 others. Phone Al after 6pm on 0420-87856

AMIGA A500 half meg upgrade, monitor. Mint condition £450 ono. or swap for Atari 1040 monitor. Tel. 081-546 5355

A500, monitor, 1Mb, printer, modem, external drive, loads software will sell or part exchange for a PC. Anything considered, phone Dave evenings after 6pm on 0761-52450

DATAEASE 4 - bought this year, manuals, tutorials etc. Aducaion version database for PC £150. Also Psion organiser model CM, manual £55. Tel. 021-777 8808

MACINTOSH SOFTWARE unused! Trapeze £130, Read Set Go V.4 £250, Image Studio £250, IBM PC: PageMaker £250. All new! Contact Derek on 081-677 4727.

SPECTRUM+3 software for sale. CP/M, Masterfile, utilities and more. All originals with manuals. Various prices. Tel. 0472-887216 for details

AMIGA A500 half meg expansion with clock plus second drive, Star LC10 printer and lots of disks and accessories £590 ono. Tel. Bruce on 0476-85627

SINCLAIR 128K +2 joystick, keyboard £50. Light pen + programs and manuals £2. Games ranging from 25p - £1 and magazines 10p each. Perfect condition. Contact Gregory at home on 081-348 3134

PRINTER - wide carriage, very good condition. Epson compatible £150. Tel. 0784-482422 (Staines).

LIKE PLAYING GAMES BY MAIL? LIKE TO TRY SOMETHING DIFFERENT? FED UP WITH DUNGEON & DRAGON TYPE GAMES?

Well now there's Battlezone. The totally different game.

Battlezone is strategy/conflict wargame. Played over a battlefield of varying terrain. Across this you must send out your armies, tanks and cannons to attack and penetrate other players defences. Have you got the ability to direct troops and survive against overwhelming odds? Can you get the balance right of attack and defence?

Now you have the chance to find out! Only the better tacticians survive in this game. So if you would like to play something different why not try Battlezone!

Write now for details of our free trial offer:
S.M.B. Games Ltd, P.O. Box 1809, SUTTON COLDFIELD, West Midlands, B75 5HE



AMSTRAD Conise Basic specification £5.50 - RRP £19.99. NCE 43, 47-60, 62-67, 69- 49p each. Amstrad software from 30p. Anthony Brenchley, 25 Gleanfield Road, Beckenham, Kent, BR3 3JS. Tel. 081-658 4134

ARCH 310M Colour, RISC-OS, 5.25" disk, buffer software, no serious offer refused. Tel. 0903-35107

COMMODORE PLUS 4 games for sale. Send SAE for list to H Black, 10 Kepplehill Drive, Bucksburn, Aberdeen, AB2 9PQ.

ATARI 8-bit software originals as new. Some classics, games and utilities. Phone Graeme for list - evenings only. Tel. 0203-311670 also Peugeot 309 GTi bumper (offers).

TANDY 102 portable, new, boxed, £200 ono. Magazines C&VG, PCW, Commodore Computing International and other defunct magazines, mainly commodore based. Offers - Tel. 081-579 1507

MASTER 512K co-pro with twin drives and amber monitor, music 5000 synthesizer plus books and software. Offers contact: Miles, Alwyn Cottage, Highfield Road, Bream, Glos.

AMIGA B2000 brand new, 20Mb PC/Amiga hard drive, PC/XT bridgeboard, 5.25" drive, boxed with manuals, installation disks etc. £850 ono. Tel. 0243-774767 after 6pm.

COMMODORE 64 with disk drive, a few disks, two tape decks, £500 worth of games, joystick and Music Maker £350. Tel. 0993-779936

AMIGA A500 with external drive, joysticks etc., loads of software 200+ games, all the latest stuff. £300 no offers. Tel. 0202-479080 after 6pm.

SEGA GAMES SYSTEM with 3 games. Hardly used £30 ono. Also Apple IIe, monitor and disk drive - any offers. 0249-814547

BUZZBOX COMPUTING

5 Balmoral Road, Moorlands, Lancaster,
Lancashire LA1 3BT

Buzzbox is a disk based magazine for the ATARI ST. It is packed from track to track with quality Public Domain. We receive contributions from some of the biggest Public Domain libraries in the land, and outside. Make no mistake Buzzbox is not all demos as other disk mags and the customer has a genuine say in what they would like to see, and complain about. The best thing is the price.

ISSUE 7 is available from 1st October, back issues are available upon request (no1-6).

For further details send SAE. We now do subscriptions. **QUITE HONESTLY, CAN YOU AFFORD TO MISS IT?**

Atari/ST
£2.00 inc
Postage and
Packing

SPECTRUM 48K+ with two joysticks, 120+ games and other software/hardware. Only £100 - all offers considered. Tel. 0836-380187

QL for sale. 128K, microdrive cartridges £50 on. Tel. 0836-380187

AMSTRAD PCW8256 with Locoscript 1+2, Mini Office, blank disks, hardly used, still boxed. Bargain £220 Tel. 0244-535310 after 4pm.

MEGADRIVE Ghosts and ghouls swap. Also, Megadrive games wanted. Also brand new Spectrum+2a computer and lightgun, loads of games. Immaculate order. Tel. 081-504 8861

1MB AMIGA A500. Kickstart 1.2, 2nd drive and nearly 500 disks containing animations, utilities, public domain and entertainment software. £590. Tel. 0202-882195 weekdays.

AMSTRAD CPC464 with TV modulator, joystick, £150 games, manual, magazines. Buyer collects for quick sale - £100. Ask for James (0306) 886569.

ATARI STE 2Mb RAM. Excellent condition only £399. Ring Reading (0734) 869181.

BOOKS for 'alternative' micros eg: Mk14, Spectrum, CPC, QL, Apricot, Oric, Aquarius, more S.A.E. Jones, 2 Town Mead, Oakford, Devon, EX16 9EW.

LYNX for sale with five games including Chip's Challenge, Gauntlet 3 and many others. Contact Nick (Isleworth) 081-560 0197.

PC engine for sale. Plus four games (Pal PC engine) boxed, very good condition. Sell for £160 o.n.o. Phone (0898) 278335. Ask for Steve (evenings).

COMPUTER HARDWARE CLEARANCE!!!

SBC 286/10 - 40M HD	£595	3Com 505 Intel. Ethernet	£150
AT Compatible with 14" Mono		(£1000 new!)	
PC (8088) 10Mhz	£350	3Com 505 Intel. Token	£150
640K with 12" Mono + Floppy		8 Port Serial	£100
Intel Aboveboard AT (1M)	£175	V22bis/MNP5 Modem	£299
Everex RAM 3000 (3 Meg)	£300	2M 256K-6 SIMMs	£150
2M AT Ext/EMS (1.5 Meg)	£150	Mac+/ImageWriter	£500
Thident S-VGA (16 Bit)	£100	Rodime 20M (Mac)	£200
Lotus 123v3 (New)	£260	OPAL Telex system	£750
Miracle WS4000 Modem	£60	* Other items available - CALL *	
NCL AT HD Controller	£60	Most of equipment is new or	
Miracle WS2000 Modem	£25	ex-demo with all boxes etc.	

Call Matrix on (051) - 236 - 7978 Access/VISA Accepted
ALL PRICES EXCLUDE VAT and Post/Packing. E&OE.

AMIGA originals, F18, Starglider 2, Millennium 2.2, Gunship, Barbarian 2, RVG Honda, Ferrari F1 + more £7 each. Also Robot Arm + software. Tel: (0348) 873738 after 6pm.

SEAGATE ST225 hard disk drive, 21Mb capacity. Brand new, unused and still sealed in original packing £150. (Cost over £200). Phone (0280) 813175 eves/weekends.

SPECTRUM +2 with joystick, few magazines, over 110 original games (budget and full price). Bargain at £150 (including postage). Phone Ian on (0244) 345169.

SPECTRUM +3 for sale. Includes joystick, leads, manual, over £150 of games and loads of mags. Phone James on 081-995 1252. Sell for £180 o.n.o.

SPECTRUM +3 Multiface 3, 2 joysticks, 100+ games and 40+ mags. v.g.c. £150 o.n.o. Ring (0444) 246921 evenings - a bargain not to be missed.

AMIGA software worth £1,000, Castle Master, Kick Off 2, Sim City, M.U.F.C., loads more, all originals. 3 Abacus books only £250. No offers, send S.A.E. for list: M. Beckett, 94 Randlesdown Road, Bellingham, London SE6 3RS.

C64 mono, 2 joysticks, over 59 games + 64K memory expansion worth £553, price £350. Phone Nick 081-886 5216. Il. London. PS. + modulator.

AMSTRAD CPC6128 computer, colour monitor, DMP 2000 printer, joystick, Mini Office 2, Brunword word processor, manuals and disks. Hardly used £220. Tel (0256) 781387 after 5pm.

ATARI 520STFM. Excellent condition, includes: Contriver mouse, joystick, STOS, games, PD, demos, sound sampler, computer link, issues 1-14 ST Format etc. Offers: David 091-389 1577.

ENTERPRISE 64, no offers. Apple IIe system £250 o.n.o. Call for details: Richard (0573) 26032. All computers have leads, manuals, etc.

ATARI 520STFM, 1 megabyte memory, 1 megabyte internal drive, £700 of original software (STOS, Castle Master, etc.), loads of P.D. & accessories, £350. Chris: 021-550 6489 for information sheet.

ST software Metacomco, Revised Basic with 322 page manual. As new, STE compatible, £5.50. Also serious mono contacts wanted. Electronics. Somerville, 56 Leamington Terrace, Edinburgh.

464 mono, joystick, 120+ games, costing over £400, 20+ Amstrad magazines, worth over £750, sell for £350. Buyer collects. Phone Jason 081-882 3703.

FOR sale Sega Master System, in mint condition, with five games including Shinobi, Hang-On, Casino Games. All for £100 o.n.o. Phone Paul on (0360) 310803.

MEGADRIVE Batman £26, Phelios £25, Curse £24, Alex Kidd, £16. Phone Samir 081-592 2117 looking for buyer in London area. Also Thunder Force 3 £25.

AMSTRAD 8256 word processor for sale, best offer over £250. Includes light pen, joystick, games, exbasic. Call Doug on (0763) 852324 evenings. Computer desk £10.

SEIKOSHA inked printer ribbon for 5" printer model GP50S. Brand new unopened £4.00 o.n.o. Gold, Silver, Bronze game pack Spectrum £8. Tel: (0602) 411537

Seagate

H.A.C.S.

THE DISK DRIVE PEOPLE FOR MAXTOR HITACHI CDC FUJITSU NEC MICROPOLIS TOSHIBA MINISCRIBE ETC

Seagate ST251 42.0 MB 5.25 HH 28MSEC	£215.00
Seagate ST277 65.5 MB 5.25 HH SCSI	£269.00
Seagate ST157A 44.7 MB 3.5 IDE 28MSEC	£239.00
Seagate ST125A 21.5 MB 3.5 IDE 28MSEC	£195.00

These drives have an embedded controller and come with cables, fixing kit, instructions.

**FROM 20MB - 1.2GB
SCSI ESDI MFM RLL IDE**

PRICES EXCLUDE VAT & DELIVERY

TEL NO 0488 683461

FAX NO 0488 683898

Seagate

MSX HX-10 computer for sale with 52 games, cassette recorder and manuals, worth over £300, will sell for £80 o.n.o. In excellent condition. Simon: (0656) 771716.

OFFICIAL A500 memory upgrade RRP £150, A501 now selling for £60 no offers. Still boxed as new, call 081-551 3731 after 7pm. Ask for Tak

CURRAH speech £7.50, Comcan £7.00, Trivial Pursuit £7.00, Graphic Adventure, Creator £12, many more inc. Jack the Nipper, from 50p. Wanted Atari bits: (0721) 20883.

SPECTRUM 128K + 2 plus loadsa games, including Leaderboard, Op Wolf and dozens of others, with two joysticks and manuals, just £90 o.n.o. Phone Sean (0293) 28291 (home).

ATARI 520STFM original Silica pack £300 worth of software including 1st Word, Neochrome plus many adventures, games. All boxed, immaculate £200 o.n.o. Phone Mike (Oxford) (0865) 728638.

PC software: IBM Wisepack ver 2.0 (WP, s/sheet, filer, etc.) on 3.5" disk, £50. Also Delta 4 database on 5.25" disk, £20. Both brand new. Ring 081-950 5569.

BBC master 128 40/80T disk drive, Watfords Quest and AMX with mouse, loads ROMS, over 60 disks and books £375 o.n.o. Brighton (0273) 412669.

AMSTRAD CPC464 colour computer with manual, free software pack and 10 other games, £180 o.n.o. Also DK Tronics lightpen on tape £12. Phone Adrian (0992) 461235.

PC ENGINE Pal + (takes two adaptors) with three games only £75. Phone Ahmed (0222) 487794 or write: 32 Boverton Street, Roath Park, Cardiff, S. Wales, CF2 5ES. Hurry.

SPECTRUM 48K and data recorder both boxed, as new condition, with manual, books many games £39. Tel: Guildford (0483) 577934.

A.C.C. TRONICS Ltd.

IBM COMPATIBLE SPECIALISTS Tel: 021 765 4146

- * Public Domain and Shareware from 50p (5 1/4") & 75p (3 1/2")
- * Free Catalogue on disk - Please state size, 5 1/4" or 3 1/2"
- * XT M/boards from £68.00
- * AT M/boards from £129.00
- * SX M/boards from £295.00
- * Monitors from £65.00
- * Printers from £60.00
- * Printer Cables £5.00
- * VGA Cards from £85.00
- * F.D. Drives from £50.00
- * H.D. Drives from £120.00
- * Keyboards from £30.00
- * Case & PSU from £90.00
- * Other cards in stock

- * Blank Disks 5 1/4" from 30p
- * 3 1/2" from 45p
- * CUSTOM BUSINESS SOFTWARE WRITTEN TO ORDER
- * Trade Enquiries Welcome * Call us NOW on 021 765 4146

NETWORK SPECIAL OFFER

- 3 Piece Network System
- * Customised Shareware
- * 20mb AT-12 Fileserver
- * 2 x AT-12 Single floppy workstations
- * All Network cards and software and Cables
- * DOS 3.3 and Manuals
- ALL FOR ONLY £2500.00**
- Installation available

COMMODORE64 computer with disk drive, tape deck, printer, modem, Freeze Frame and Music Maker. Also mouse and cheese games on tape and disc £270 o.n.o. (099289) 2821.

PC Engine (PAL) with six games including New Zealand Story. Excellent condition and 12 months warranty £185 o.n.o. or swap for megadrive. Tel: (0533) 739174 after 5pm.

AMIGA software for sale: all originals - Batman, Nebulus, Rampage, Roger Rabbit, StarRary, A.P.B., S.E.U.C.K., £40.00 o.n.o. Will split, write to: Simon, 68 Richmond Road, Cardiff.

ATARI 520STFM, double sided disk drive, mouse, leads and manual, over £500 games, boxed, as new, in mint condition £210 o.n.o. 081-518 1176.

AMIGA Cumana external 5.25" drive 40/80 track switch, on/off switch, 8 months old, £75 (0633) 858819 ask for Andrew.

AMIGA 500 with 1 meg expansion, 2nd disk drive, modem and modulator, loads quality software disks, books, etc Perfect condition, boxed £395 Adam 081-397 3546. Helen 081-399 9429.

SPECTRUM software for sale inc: Robocop, Double Dragon, Target Renegade Write to: Anthony Rushton, Well Cottage, Whitchurch Road, Bunbury, Nr. Tarporley, Ches, CW6 9SY. Send S.A.E. for full list.

FOR sale: Pandora computer CPC disk - unused version 1.0 Will sell for £18 or swap for modulator for CPC464. Phone after 4pm, ask for Neil (0592) 774148.



**IF YOU WANT
NAKED LADIES
CUT THROAT PRICES
COWBOYS
TRY ELSEWHERE,**

BUT IF YOU WANT

Good prices, good service and a good product range covering all leading Midi/Music packages, education, art and graphics packages plus business packages please contact us.

FOOD FOR THOUGHT

DON'T THINK CHEAPEST IS ALWAYS BEST

DON'T BUY GREY IMPORTS

DON'T PAY UNTIL YOU'RE SURE

DO REMEMBER THAT AFTER-SALES SERVICE IS WORTH IT'S WEIGHT IN GOLD

REPAIRS: NO PROBLEM

WE HAVE OUR OWN SERVICE DEPARTMENT

SGM Electronics, 19 Charles Street, Wigan, Lancs WN1 2BP
TEL: (0942) 321435 FAX: (0942) 821273

TREASURE ISLAND

1 2 3 4 5 6 7 8 9 10

A B C D E F G H I J

CASH PRIZES

USE YOUR VOICE TO LOCATE THE TREASURE

0898 313 586

Infodial PO Box 36 LS1 4TN Call Charges 33P Per min. Cheap Rate 44P all other times

TWO C90 sides of Soundtracker and sampled music recorded of the Atari ST. Send blank tapes plus £3 to 57 Tennis Court Drive, Leicester, Humberside, LE5 1AJ.

LOTUS Symphony rel. 2, new 3.5" discs, original, hardly used, great bargain £125 Ring (0743) 231567, evenings ans. phone.

CBM64 colour monitor, disk drive, printer, data cassette, set of Inpug mags, utilities over 50 games £450 o.n.o. Phone Brierley Hill (0384) 74305.

COLOUR monitor QL 840K manual, programs, games, joystick, £225 o.n.o. Phone 081-948 5477.

AMSTRAD PC1640DD mono display, DMP4000 printer, Wordstar, SuperCalc, Accounts Master, software included. All equipment unused, six months old, change of job forces sale £790. (0780) 782620.

MITSUBISHI 5.25" FDD, 1.6Mb floppy disk drive, boxed/new £75.00. Teac 3.5" floppy drive 1 or 2Mb switchable boxed/new £75.00 Medoc F1/F2/A/K ladder logic/step program + manual unreg/cost £400 - sell £150.00 061-633 0824.

MAGAZINES for sale, send S.A.E HP718 hand held compier £100. Centronics GLP 19 pin printer £55. Contact Stephen Neal, Meon Ley, Upper Quinton, Stratford-on-Avon, Warwickshire.

ZX Spectrum +2, with £400 software, books, joysticks, plus Citizen 120D printer with parallel interface £180 4 Hadrians Close, Salendine Nook, Huddersfield Write to confirm.

MODEM, British Telecom Merlin, v.29, 9600, 7200, 4800, 2400 baud rate Full Duplex 4 port multi-plexor, new and boxed with manual, only £150 o.n.o. Phone 081-866 7152

SEGA Master System, joystick, 22 games including many top arcade hits. Bargain £250, worth over £500 (quick sale) Tel: Southampton 600560.

DISC boxes, 3.5" 80 capacity, 2 new £8, 2 used (as new) £6 25 discs, DSDD, new, sleeved, £9 (surplus - backups, archived) Coventry (0203) 460410.

ATARI ST software, all boxed originals with instructions, sell the lot for £55. (04024) 57507

AMSTRAD 6128 stereo amplifier tape deck, Clarion speakers, joystick, lots of mags and games and posters. Call Jaydeep 081-577 5861. Make me an offer, after 6pm.

AMIGA 2000, monitor, printer, hard drive, 2nd drive, video camera, graphics and sound software, 300+ PD disks, games + more £2,700. Tel: (0933) 50891 after 5pm.

AMIGA Action Replay cartridge, boxed, new m/c monitor, Freezer £40. Amos Game Creator plus new extras disk £30. Ask for Julian on Sheffield (0742) 438542.

CHEATS disk issue 4 for Amiga, last chance to buy! Only £2.50 wow! Send cheque/PO to: J.S. Smith, 45 Maplecroft Crescent, Sheffield, S9 1DN, South Yorks.

AMSTRAD CPC6128 colour monitor, games, spreadsheet, joystick, mags, books, systems and normal disks. Amazing offer, worth £440 only £210. Contact Mark on 081-650 0694 anytime.

SINCLAIR Spectrum 128K +2, good condition + 230 games, 2 joysticks, lots of mags. Quick sale £150 o.n.o. Tel: (0932) 352108.

EPSON LX800 9pin mono printer, four spare ribbons, price £120. Tel: 021-526 5476 after 6pm, ask for Richard.

KCS POWER PC BOARD
for the Amiga A500, transforms your Amiga into a PC compatible, and gives you extra money too!

£320

DATAPHONE PRO 4 MODEM
Speeds (V21, V22, V23, V22 bis) 300/300, 1200/1200, 1200/75, 75/1200, 2400/2400, with MNP level 5, gives incredible transfer rates at a price you can afford. Save on your phone bills now!

£319

ORDER NOW!

All prices include P+P. Delivery usually within 48hrs.

Tel: 051 924 0200 Fax: 051 931 3857

Or send cheques/PO's or card numbers with expiry date & signature to:
UNBEATABLE PRICES LTD, PO Box 5, Liverpool, L23 0XG

AMIGA A500, 1Mb upgrade, 2nd drive, loads of software, books, Panasonic KXP1081 printer Reluctant sale, £450 the lot. Tel: Hugh (074) 4937 after 6pm.

AMSTRAD CPC6128, mono monitor, datacorder, leads, lightgun, joystick, games, less than 12 months old, £200. Tel: (0772) 39146 (Preston area) - excellent condition.

ATARI 520STFM, 1 meg internal drive, £250 worth of software (inc. STOS), lots of PD Sell for £250 o.n.o. Phone (0242) 525034 after 5pm.

ATARI portfolio with 32K RAM card and Atari Lynx with three games for sale. Best offer secures. Tel: (0580) 714445 ask for John.

AMIGA games: Battletchess £10, Blood Money £6, Beast £8, F29 Retaliator £9. All boxed, as new plus more. Phone Dave on Sheffield (0742) 337960.

STAR Delta 10 printer, excellent condition. Epson compatible. Wealth of features £100 phone Onil on 0474 356798 after 6 pm. Buyer collects.

ATARI 520 STFM 1 MEG drive plus video digitiser, 22" colour TV, PD and more £400. Tel: 061 7208100 after 6:30 pm.

ATARI 130XE, brand new XC12 D/recorder and Spy V Spy 2 game. Leads as new etc. £65. Buyer collects. Contact 0989 65818.

SPECTRUM+2A Hi-soft Devpac blas compiler mini office Anim1 Kempston interface 20 + games. All boxed. Bargain £100 ONO. Call after 6pm 081 5231923 (Walthamstow, London)

PC Supercharger. Brill PC emulator for any Atari ST. Built in 1 MEG with DOS + 6 month warranty. Only £275 ONO. Phone Nick on 0628 31793



from £40.83

We support over 24,000 printer brands, and have a complete range of colour, heat-transfer (for T-Shirt printing), and indelible inks. Colour, multicolour, heat-transfer, and uninked cartridges & refills supplied - Ask for our free catalogue.

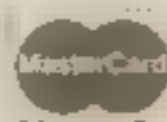
Most ribbon re-inking services use our MacInkers, and over 130,000 have been sold since 1982.

MGA SoftCat

(0797) 226601 Fax: 226721

41 Cinque Ports St., Rye, E. Sussex TN31 7AD

(PRICES EXCLUDE VAT, & p&p extra) E.& OE



SEGA Megadrive three games, two joypads only £180 or will swap for Amiga A500 no games required. Phone 0268 683250 and ask for Glenn.

55 World Soccer magazines and 38 computer magazines mainly the Home Computer Course 1983 lot of Spectrum and QL items 41 Springmill Street, Bradford, BD5 7EE.

MEGA Drive for sale with four games. Worth £360 sell for £220 or swap for Amiga A500. Contact Stuart on 0223 323212 after 4 pm.

DOLAN XT Turbo 102 Keyboard Monitor, 360K and 1.2 MB drives GEM, DRDOZ. All as new £450 ONO inc. delivery. Tel. Sapcote 045527 3053

100+ disk public domain library (ST) for sale. Offers over £70. Phone Peter on 031 4417952 after 6 pm.

ACORN Electron data recorder. Tapes, manuals, PU. Cheap for quick sale. £20 0293 32461

COMMODORE Music expansion system for C64. Five octave keyboard FM expander, sound studio and original software. All in original box. £35 (Chester) 0244 851066.

SEGA Megadrive, PAL/SCART output. Still boxed, extra joypad, four games inc. Eswat, Forgotten Worlds. Excellent condition, hardly used. £280 ONO. Tel. 091 5181464.

SEGA Mega Drive Inc. Thunder Force 3 and Ghosts and Ghouls. Hardly used. £80. Tel. 80586669 and ask for Robert.

DEMON modem 300/300 1200/75 75/1200 works but requires software for computer only £40 0353 723313.

BBC B software for sale over 30 original titles inc. Elite Castle and all ultimate £50 or split 0443 832858 (eves)

SPECTRUM +2 Action Pack, Light Gun, + 3 action games, Free dust cover, 128K, Calculator, B+Basic, and 48K, +10 Mega Games, free 3 £9.99 Games. Only £130.

Z88 computer, 128K RAM, 128K Eprom, Z-tape and leads, mains adaptor, printer interface, Z88 mags. Boxed as new Worth around \$400. Sell £275. Horley 820502

ATARI 1040 STFM, £300. CM8833 £190. Mono monitor £85. External ST drive £60. LC10 printer £125. Lots of software. Phone Roger on 076 886200.

APRICOT F1E, MS DOS, 256K memory, green monitor, single disk drive with software, work processor etc. Phone after 3 pm Swansea 0792 581524

CBM 128, C2N tape recorder, B/W TV, action replay VI, £150 of games, magazines, for £165 ONO tel. 021-3566219

C64C with 1541II D/D games incl Rocket Ranger, Space Rogue and lots more. 8 months old. Phone 061 7751004. Ask for Danny after 6:30 pm

GENISON GS-4500 hand scanner for IBM with OCR and paint software almost new £120 ONO 0903 210152 after 6 pm.

ATARI 520 STFM 1 MEG drive £600 of latest software and Superpack, joystick, mouse and mat, mags, coverdisks, dustcover, manual, leads, ex conf £350 ONO. Robert 081 886 2503

MAC S.E. and 30 MEG hard drive and high res. mono. monitor. Sell for £800 call Dave on 051 4282280.

AMIGA 500 hardly used mouse, joysticks, Batman, 10 Star pack, Superbase, Personl, Populace, Lots games, utilities over £500 total. Bargain £350. Tel. 0751 76882 N. Yorks.

SEGA Megadrive, Scael Ten, latest titles, two joypads, leads, power supply, mint condition. £320 ONO. Tel. 0482 668669 after 6 pm

SINCLAIR QL with manual, software, games, typing tutor, joystick and 10 spare microdrives. Little used, less than 1/2 price at £79. Telephone 0582 768653 evenings.

WOW. This is a bargain. Amstrad CPC 464 colour monitor, three joysticks, Robocop, Chase HQ, Turbo Out Run plus more. Must sell. Brill deal. Phone Tom. 0793 740028.

ARDHIMEDES 410/1 upgraded to full 440/1 specification plus Taxan 770 monitor, interdictor and solditools (3D CAD). 9 months old. £11500. Mortgage forces sale. 0273 698560 evenings.

AMSTRAD CPC464. Loads of games, joystick £150. also Sega video games system, three games, 9 months old £120. Tel. Simon (Stoke-on-Trent) 261564.

PC software: IBM Wisepack ver. 2.0 (WP, s/sheet, filer, etc.) on 3.5" disk, £50. Also Delta 4 database on 5.25" disk, £20. Both brand new. Ring 081-950 5569.

**Let this advertising
space work for YOU!!
For Only £56**

**Contact Tim Partridge
on
0225 442244**

WCLB FANS (AMIGA)

NEW 3 COURSE DISC

PLAY THE US MASTERS AUGUSTA NATIONAL

Authentic yardages to pin, hazards etc.
Produced to scale, full panoramas, no gimmicks,
a serious tournament course. Augusta +2 C/disc.
£4 inc. p&p.

Send cheque to J. Cauley at
C/Disc, 34 Aintree Road,
Cullmoor, Southampton, SO4 2TL

VICTOR Sirius system complete, twin floppies, monitor, keyboard 20 MB hard disk. No software hence £155. Ron Hollingshead, Torquay, 0803 612942

PRINTER Amstrad DMP 2160. slight fault, print head OK. Useable, easily repaired. £40 ONO., Write: G Porter, Eliot, Ashworth Hospital, Mighull, Mersyside, L31 1HW

TATUNG Einstein, twin drives, 80-col card, BBC Basic, Logo, wordprocessor spreadsheet, database, C-compiler 280 assembler games, books, PD, software, approx. 40 3" disks £75 0353 723513

AMIGA A590 hard drive 20 MEG plus 1 MEG RAM, Quarterback software and hard drive system discs £350.

ATARI 800XL with data cassette, joystick and 60 original titles (20 full prices) £90 ONO 0443 832858 (evenings)

BOOKS for many micros, also chess books for sale. Jones, 2 Town Mead, Oakford, Devon, EX16 9EW. Also got lots software for Spectrum and CPC.

SPECTRUM 128+2 with VTX5000 modem, joystick, Kempston and Sinclair interfaces. Over £400 worth of software. Complete with manuals. VGC £175 ONO. Phone Win 0962 881426

BBC 'B' colour monitor, disc drives, software, books worth £750. Sell £250 ONO. Phone 051 547 3747

TAITO Space Invaders Arcade Machine - the Classic Machine that started it all! Excellent condition, buyer collects. £150. 061 6531552 (North Manchester)

SPECTRUM Plus 48K (plus leads) with Timex 2040 printer (with paper), joystick and 56 games. Excellent condition. Worth over £250. £50 ONO. Tel. 0394 275011

BARGAIN or what. Amstrad CPC464 Colour monitor, three joysticks, loads of games, Robocop, Chase HQ, Turbo out run and more. Must sell. Phone ABIGA A500 internal memory upgrades for sale. All new with switches and clocks. Low low prices 1.5 MB, \$125 up to 9 MB. Call 0742 686977 now (ICE).

AMSTRAD 6128 with colour monitor, numerous disks and tape games and utilities books and mags. Tel. 0253 58735 after 6 pm £250.

AMIGA originals Phobia, voyager, Chess 200, Castel Master Plus Crypt, Archipelagos, Nebulus, Commando, Paper Boy, Pipemania, Mind fighter, Italia 90. Most unused. £50. 0224 824904.

FOR sale: Amiga RAM expansion 512K. No clock. Cost new £40. Sell for only £30 inc. p&p. Write to D Clift, 15 Back, Knowl Road, Mirfield, W. Yorks., WF14 9SA. 0924 494690.

FOR sale: Shadow of the Beast one and two incl T-shirts. Cost new £70. Both £35 inc. p&p. D Clift, 15 Back Knowl Road, Mirfield, W. Yorks., WF14 9SA. 0924 494690.

PHILIPS colour monitor, SCART and composite inputs. Suitable for ST or Amiga. Bargain at only £120. Contact Norm after 6 pm on 071 2411936. Can you really afford to miss this bargain?

AMIGA A500, KS1.3, 2 x joystick, £80 books, over 200 disks, mouse, modulator, manuals, computer £280, or all for £500. Phone Jedburgh 0835 63758. Jon, after 6 pm.

AMIGA games, originals, SAE for list. Also many Specky mags. Offers G Power, 6 Renoir Mews, N. Bersted, Bognor Regis, W. Sussex, PO22 9AU.

SAM coupe disk drive, brand new, boxed complete with DOS disk £60. and postage. Phone 0384 893220 evenings.

AMIGA A501 expansion genuine Commodore £50 cumana 3.5" drove £55 both mint and boxed with guarantee. 0705467943

ATARI ST "original" games, Oricity etc for sale or swap. What have you for cist write to Ricky 26 Fairfield Place, Ruesham worse, WR11 6HE.

PUBLIC domain for the IBM PC. 350 titles available for the price of a blank disk. Tel. 0533713867 for details.

ST games for sale many titles Xenon2 Babel many more. I have about 40 to sell inc. some serious stuff and a complete ST format. 0223351138

AMIGA video and graphic application software bundle. Deluxe video, productions, deluxe video, fantavison and more. Offers 0773749630

AMSTRAD 1640 C-monitor 20 MEG hard disc printer. VGC £650. Atari 130 XE new boxed datacard PS leads EXT £75. Phone Peter Letchworth 0462884995

FOR sale: back issues of ZZAP! 64/Amiga, including cassettes. Nos. 16 to 66. Sorry, buyers must collect! Write to: Adam Wright, 33 Great Holme Court, Thorplands, Northampton, NN3 1TD

128K Spectrum 14" colour TV. £200 of software Romantic Robot, interface joystick and interface all for £80. Call 0614945497 after 7:30.

ATARI 1040STFM C290, CM8833 £190, SM124 C85, LC10 £120, ST2nd drive £50. Many ST accessories. Ring 076286200. Ask for Roger.

C64 software and books for sale, Bristol 864153. Ask for John. (wanted ST contacts).

APRICOT XI MSDOS 2.11. Green screen monitor. Twin 3.55 1.44 drives. Call Bob on 0903752351 with offer.

PSION model-XP (with manual) VGC. Quick sale wanted (may swap). Welcome offers? Letter replies only: Chaires Trager, 7 Grantley Street, Glasgow.

SWAP C64 inc games and power pack for handheld colour TV. Tel. Lee 0778347616 after 6.

FOR sale Amstrad CPC 464 with colour monitor, games, mags, in mint condition. All for only £130 ONO. Tel York 0904642056. All boxed.

FLIGHT simulator II original for sale. £20 not registered. Bristol 0272825702. Unwanted gift.

OLIVETTI Procast PC1, Twin disk drive, CGA colour monitor, 512K Ram, £1400 Tel. Alan 0923 227976 evenings.

CBM-C20-PLUS hardware and software. Colour monitor 1702D/D and datasette disks and tapes and connectors. £250 the lot (Gosport) 584489

MSX Toshiba BA MX10 Computer 4 Kkami cartridges well over 100 games all leads, manuals, 2 joysticks. Bargain at £75. Phone 023454386 after 6.

AMSTRAD 6128 with colour monitor, joystick and games for £250 ONO. Tel. 0582492069

ATARI ST for sale. Excellent condition. Lots of games inc. Xenon II, The Running Man, Shinobi and many more. £250 or swap for Amiga. Tel. 073343474

XT-BRIDGEBOARD for Amiga 2000, 5 1/4 floppy drive, 20 meg, 3 1/2 Seagate HD, WD controller, DOS3.3 Manuals £350. Phone 0705830281 evng/wken.

SPECTRUM+2 many games, video digitiser, joystick, mouse. System and artist2 manual. Still boxed. Sell the lot £120 ONO Tel. 0709863427

ONEO Vickers duplicator M/C mains or hand black/purple stencils for computer print ERS 150 copies per minute £200 ONO. Tel. 080453144.

ATARI ST single sided drive excellent condition. £35. Tel. 0472 280043 evenings.

SAM coupe and comms I/F, spectrum 48K, Wafadrive, Pace Nightingale, modem, TV tuner, would swap Sam for an Amiga hard disc. Tel. 0963 250674 (5pm)

AMIGA 500 (Batpack complete) boxed, and joystick and 25 blank disks £360. Star LC10 colour printer £175. Plus some other software. Ring 037365752

ATARI Lynx plus California games and Electrocop. Excellent condition. £135. Phone Jason after 18:00 on 9562754297

LOADSA Specky software for sale. Please send SAE for list. Prices? 50p - £3. also C64 games.

ATARI laser SLM804 only 5 months honed! Any sensible offer considered. Tel. Phil on Rotherham 0709878095

AMSTRAD CPC GT65 green screen monitor. £50 ONO. Write to 33 Clay Flatt Lane, Rossington, Doncaster, DN1 10AZ. Buyer must collect.

THE best midi keyboard casio polyphonic channels, sampled sounds, stereo sounds, editor, three months old. £210 ONO. 09046366371 York.

MIDI keyboards, Ensoniq ESQ1 £500, HR16 drums, £150, and Midi data filter £100. Call Gary on 0516446666, Days.

ATARI ST software: fast basic on cartridge £35. External clock card £15. Bionic Commando £6, Gauntlet 2 £6, Please phone Carl after 18:30, 0512568178

Z88 laptop computer, 128K RAMpack, 128K Eprom, Eprom blower, mains unit, carry case and PCW link. Best offer secures. Ring 0444248155, Carl.

ST05 Maestro £10, Maestro plus cartridge £30, compiler £10, Sprites £5, Bais (no manual) £5. Also lots of ST games. Brian 0883714031

COMMODORE PC-640K 20 Meg and mono display, genius mouse, games, business, applications software, games card, joystick £650. Ring 0543255015

COMMODORE64, Light Fantastic Pack £140 of software for £220. Swap for Atari ST or Sam coupe with new rom. Buyer/swapper collects. Robert Burns, 20 Ferry Street, Ardwick, Manchester, M11 3PN

BBC master compact, mono monitor, new disk drive, RS232, spellcheck, etc. £240. Will deliver most of SE Tel 0813907413 Evenings.

GAMEBOY, with supermarioland, Mickey mouse and Tetris. In good condition. 7 months old. £60 write Lucien Hoare, 25 Phoenix Rd, London, SE20

AMOS Amiga game creator as new £20. Phone John 0617900655 after 6pm please.

PSION XP. S/Hand. Perfect and leatherette case and manual. Fully working. No faults but sorry no box. £85 no offers. Ian 08115304333 after 8pm.

COMIC steer (Amiga) £25. Great for the kiddies. Phone Mark on 0442864234 after 6pm.

C64 tape games for sale, starting at 50p Write to me at 125 Alexandra St, Kirkby in Ashfield, Notts: for list (all originals only)

SEGA Master system with joypad, 3DGlasses, light phaser, over £400 of games includes R-type, boxed, sell for £220. Ring 0562850591

INFOCOM Adventures- several originals for ST, IBM, CPC/PCM. Reasonable prices, send SAE for details to Jim Fitchie, West Flat, 28 North Bridge, Edinburgh, EH1 1QG. Tel 0312255204

VIDI-AMIGA for sale, excellent condition, fabulous digitiser with all necessary leads. £75. Tel. 0472824516

SPECTRUM software 10 games including Cyberoid Carrier Command Rtype plus Tasword £15 the lot. Call Lee 0815031465

ST SC1224 monitor £150, Z88 plus Ram, Rom, Rom eraser etc. £200, Propero Pascal (ST) £50. All as new. Wanted Latice C V5 (swap?) 0734697095

21/INCH colour TV excellent condition Fisher FST £120 ONO. Phone 0913892256 or will swap for Commodore 1084 monitor or Phillips 8833.

CBM64 computer and 2N cassette. Eccelerator P;us D?D, Action replay cartridge, Simons Basic, over £300 software, Joysticks, £260. Tel. 093526936

MODEM for Commodore 64. As new. Purchased in error. Bargain £35. Suffolk 04733714216

WILL sell Amstrad Multiface Two for £25 ONO. Alternatively will swap for Sega Phantasy Star. Phone Wrexham 0978762271 and ask for Steven.

AT least 200 Spectrum mags for sale. £50 the lot plus postage and packing. Write to Mr E Bate, 11 Wodbury Rd, Wallasby, Merseyside L45 5DU 0512568178

PCW Mags Feb to Sep 90 and 8000 plus mags Mar to Sep 90, 75 pence each or £10 the lot, all excellent condition. Tel. 0849460362. Buyer pays postage.

SPECTRUM+2 with 200 games, joysticks, Defender Lightgun, light pen, all boxed. 1 year old. All for £195. Tel. 9972361

PC Engine (PAL) for sale with 1 game £130. Gunhale, Ninja Warriors Tiger Road £20 each. Call Jon on 0532695615. Also Psycho Chaser £20.

SEGAMEGA drive (PAL) plus 9 games including SMGP, Ghouls'N'Ghosts, Super Shinobi, Super hangton, Golden /axe, Thunder Force II + III, Forgotten Worlds, Flying Shark. Only £360.

AMIGA modulator £15 and competition Pro clear joysticks £8. Both for £20. Tel. 0413392200 ask for Fahim.

ABOUT 80 used microdrive cartridges, transform box with 20 £20, wallet with 4 £4. Tel. 028826800 (you pay postage).

CPM system ITT 3290 VDU and keyboard twin 8 inch 1M Drives plus manuals, some software, Wordstar, Datastar, Basic etc. £45 Tel. 0992451709

AMSTRAD CPC Rombo Rombox with protext, Promerge Plus, Prospell £70. Phone 0858464827. Collect or postage.

MUSIC synth., ideal for use with ST or Amiga. Excellent condition. Still boxed. £80 Phone 07044542709.

A & A SUPPLIES

Wide range of Commodore and Atari products including Amiga Batman/Flight of Fantasy Pack at very competitive prices

Please ring Jason for details

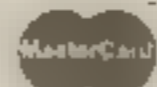
0908 216312

14 The Green, Newport Pagnell,
Bucks MK16 0JW

FAX: 0908 211057

24 Hour credit hotline

0908 216312



CBM64C for sale. C2N, £200 software manual, power pack, Mags, worth £200. Sell for £75 ONO. Phone 0815057155 (after 6 pm). Hurry! Ask for Matthew.

SPECTRUM software DTP (PCG) and extra fonts £30. Artist III £7, Tasword £7, Tascalc £7, Protitler £10. Also Romantic Robot Videoface £20 and Tasman interface £15.

AMIGAI 500, IMEG, 1084 monitor, 2nd disk drive, control centre, new mouse and mat, loads of software inc Amos, only £550. Phone 0643707159

ATARI 1/2 MEG internal drive hardly used. £20 or will swap for software. Tel. 0813100640. Buyer collects.

SPECTRUM+ £35. Spectrum with PSU leads etc £50. Spectrum+ 2A, PSU £80. QL JMROM £60. Serial 8056 printer £30. Brother 1009 £60. Tel. 028251854

EPSON LX800 9pin mono printer, four spare ribbons, price £120. Tel: 021-526 5476 after 6pm, ask for Richard.

SPECTRUM items, 3 channel sound synthesiser and sound amplifier £12, Timex 2040 printer with paper £30. The last word £4. Tel. 0258880394

SPECTRUM+2. £2000 of software included. 2 joysticks, books and cases for holding the games. £550 ONO. Contact Stef 0255860423 (Essex)

ATARI Portfolio, 32K RAM card, printer interface and lead. Complete with manuals. £200 ONO. Phone Howard after 6 pm on 0532673959

SEGA Master system 2 extra joysticks, light phaser and rapid fire unit 21 games. Still in original box. Phone 0714072150 after 3 pm. £350 ONO.

FOR sale. Complete Midi kit for Amstrad CPC464, including Yamaha keyboard. interface and software. Phone Alex 0816699906 for details.

AMIGA software for sale. Lots of games from £5 each. For details for 0643705587 evenings. All originals.

ST software. All originals. Falcon, Ghostbusters II, Dark Side, Word-up, Microsort Write. Many other serious and games. S/W. Phone 0203347014

ATARI ST upgrade chips. Upgrade your ST to one MEG £30 will secure my one and only set! Tom Zunder 0709 700637

SEGA Super system. Brand new, unused, still in box, complete with phaser, control pads etc. £70. Tel. 6771608

AMSTRAD PC151Z, colour monitor, 2 disk drives, mouse, DMP3160 printer, system software, manuals, "pro write", blak discs and box. £800. Pnoe 061 4871822 (after 6pm)

ATARI XE 3 months old, 15 games on cassette plus 5 cartridges comes with datacorder and original packaging. £85 ONO. Phone 0923 268481.

C64 data recorder, joystick, £500 of software, Music Maker keyboard and sound studio, Reset cartridge, magazines £200 ONO. Tel. 0818403514 (Ealing)

AMSTRAD PCW software for sale. Micro design 11 £15 each. Telephone 0815395351. Please ask for Stuart.

ATARI St Hisoft C interpreter worth £50. Unwanted competition prize. £35 ONO. Phone 0253 823353 between 5:30 and 6:00 pm weekdays.

AMIGA software for sale. New Zealand story, as new, mint condition, £17. Kindwords V2.0 Word processor £25. Tel. 0636 71275

SERIAL board for Epson printers, 8K memory £40 or swap for Amiga external disk drive or memory expansion 051 424 1572

OSWESTRY COMPUTER CENTRE LTD

• 24 Beatrice Street •
• Oswestry •
0691 • 670 • 902

Soft Centres

• Victorian Arcade •
• Shrewsbury •
0743 • 243 • 238



**BRAND NEW
AMIGA PACK**

£369.99

VAT & Carriage included

IN STOCK NOW!



**SEGA'S LONG
AWAITED 16 BIT**

£179.99

VAT & Carriage included

IN STOCK NOW

(Very Limited Quantities)



**BRAND NEW
C 64 PACK**

£149.99

VAT & Carriage included

IN STOCK NOW!

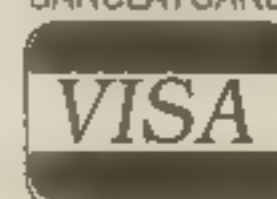
AMIGA EXTERNAL DRIVES £59.99

MAIL ORDERS TO → 24 BEATRICE ST • OSWESTRY • SHROPSHIRE SY11 1QG •



ACCESS / BARCLAYCARD HOT LINE **0691 670902**
FAX: 0691 657039

BARCLAYCARD



CYBER-TECH DISTRIBUTIONS

Tel: (0453) 544582

**FREE CLOCK RADIO ALARM OR WALKMAN WITH
EVERY NEW SEGA MEGADRIVE SOLD!!!**

CYBER MEGADRIVES CAN RUN BRITISH, AMERICAN AND JAPANESE GAMES!

**SECOND-HAND
AMIGA SOFTWARE!**

**SECOND-HAND
PC ENGINES!**

**SECOND-HAND
ST SOFTWARE!**

**SECOND-HAND
ATAIR LYNX'S**

**SECOND-HAND
MEGADRIVES!**

**SECOND-HAND
PC ENGINE
GAMES!**

**SECOND-HAND
MEGADRIVE
GAMES!**

WHY NOT TRADE-IN, SAVE £££'s!!

Budget Boy Arcade Cabinet.....	£99.95	Megadrive Pal/Scart with Alex Kidd.....	£164.95
Universal Energiser.....	£179.00	NEC CD-ROM with Interface.....	£299.00
Sega Megadrive Pal or Scart.....	£149.95	Neo-Geo with UK Power Pack.....	£399.95
NEC Super Grafx Pal/Scart.....	£230.00	FM Towns.....	£2,500.00

MEGADRIVE GAMES

Ghostbusters.....	£35.00	Target Earth.....	£35.00
Thunderforce III.....	£35.00	Curse.....	£35.00
World Cup Soccer.....	£35.00	Darwin 4081.....	£35.00
Fantasy Star II "8 Meg UK".....	£45.00	Forgotten Worlds.....	£30.00
Super Shinobi.....	£35.00	Tatswin.....	£35.00
Altered Beast.....	£30.00	Thunderblade.....	£30.00
Ghouls 'n' Ghosts.....	£35.00	Space Harrier II.....	£30.00
Attacking Shark.....	£35.00	DJ Kid.....	£35.00
Golden Axe.....	£35.00	Cyberball.....	£35.00
Afterburner II.....	£35.00	Super Basketball.....	£53.00
Rambo III.....	£30.00	Thunderforce II.....	£30.00
Whip Rush.....	£35.00	Column.....	£35.00
Herzog Zwei.....	£35.00	Phelious.....	£35.00
Hellfire.....	£35.00	Eswat.....	£35.00
New Zealand Story.....	£35.00	Last Battle.....	£35.00
Zoom.....	£30.00	Great Hurricane.....	£37.00
Moonwalker.....	£35.00	Super Monaco GP.....	£35.00

PC ENGINE GAMES

Don Doko Don.....	£35.00	Be Ball.....	£35.00
Motorbike Kid.....	£35.00	Victory Run.....	£35.00
Pacland.....	£29.00	Fantasy Zone.....	£29.00
R-Type II.....	£35.00	Psycho Chaser.....	£35.00

●●● STOP PRESS ●●● STOP PRESS ●●●

Splatter House Hand Held Game.....£25

All new items are guaranteed for 1 year, second hand goods carry 6 months guarantee.

**WE BUY AND EXCHANGE SECOND HAND CONSOLES AND COMPUTERS
PHONE OR WRITE WITH DETAILS NOW!!!**

All items subject to availability.

Send cheques/P.O.s to:

**CYBER-TECH DISTRIBUTIONS,
INTERSTATE HOUSE, 40 LONG STREET, DURSLEY, GLOS, GL11 4JB
TELEPHONE (0453) 544582**

DO IT NOW!!

DO IT NOW!!

PRINTERS

All of our printers come with a free cable and have a full 1 year warranty.

Star LC10 Mono (9-pin)	£150.00
Star LC10 Colour (9-pin)	£195.00
Panasonic KXP1124 (24-pin)	£249.00
Panasonic KXP1624	
15" carriage (24-pin)	£399.00
Citizen Swift 24 (24-pin)	£299.00
Swift 24 Colour Kit	£34.95

PRINTER RIBBONS

All of printer ribbons are genuine manufacturer ribbons - we do not sell inferior copies!

1 x LC10 Black Ribbon	£3.50
5 x LC10 Black Ribbons	£16.95
10 x LC10 Black Ribbons	£32.95
1 x LC10 Colour Ribbon	£5.20
5 x LC10 Colour Ribbons	£24.95
10 x LC10 Colour Ribbons	£47.95

Swift 24 Black Ribbons (each)	£3.95
Swift 24 Colour Ribbons (each)	£13.95

1 x Panasonic KXP1124 Ribbon	£8.95
2 x Panasonic KXP1124 Ribbons	£17.50
3 x Panasonic KXP1124 Ribbons	£25.00
5 x Panasonic KXP1124 Ribbons	£39.99
10 x Panasonic KXP1124 Ribbons	£69.99

ATARI LYNX

Lynx Games Machine (with free California Games)	£149.00
Game Cards:	
Blue Lightning	£19.99
Chips Challenge	£19.99
Electrocop	£19.99
Gates of Zendocon	£19.99
Gauntlet II	£23.50

IBM PC COMPUTERS

Phone today for a quote on the latest PC compatible machines (all configurations):
AMSTRAD, COMMODORE, ATARI,
GOLDSTAR etc etc

AMAZING PRICES!

REMEMBER
ALL OF OUR PRICES
INCLUDE DELIVERY
AND VAT - WE
DON'T HAVE
HIDDEN PRICES
LIKE CERTAIN
OTHER MAIL ORDER
COMPANIES ...

MICE

Contriver - ST compatible	£18.95
Contriver - Amiga compatible	£19.95
Contriver - PC compatible	£23.50
Naksha - ST/Amiga/Amstrad PC	£34.99
1352 - Amiga/Commodore PC	£34.49

ATARI PORTFOLIO

Portfolio Pocket PC	£179.95
Parallel Interface + cable	£39.95
32K Memory card	£46.75
64K Memory card	£82.95
128K Memory card	£119.00
Finance Card software	£47.50
PC Application software	£47.50
Utilities Card software	£47.50
Serial RS-232 Interface	£56.95
Super Memory Expander	£164.95
Portfolio Card Drive	£67.50
Mains Power Adaptor	£11.99

PHILIPS 8833 COLOUR MONITOR

All of our Philips 8833 colour monitors come with 12 months on-site warranty and are supplied with a cable of your choice:

8833 + STFM cable	£249.00
8833 + STE cable	£249.00
8833 + Amiga cable	£249.00

ATARI ST ACCESSORIES

SM124 Mono Monitor	£99.99
Megafile 30 Hard Disk	£449.95
Megafile 60 Hard Disk	£619.95
SLM804 Laser Printer	£1115.00
SLM804 Toner Cartridge	£37.50
SLM804 Replacement Drum	£159.99
Cumana 1 MB External Drive	£89.95
Roctec 1 MB External Drive	£75.00
Forget-Me-Clock II Card	£24.95
ST Monitor Switch Box	£14.95
STE Stereo scart lead	£12.99
STFM standard scart lead	£7.95
Replacement STFM/E PSU	£99.95
Vidi ST Video Digitiser	£86.99
Atari CX40 Joystick	£4.95
Joystick/Mouse extension lead	£4.75
Replacement Mouse lead	£3.75
Standard Parallel Lead	£5.95
14 Pin Din Plug (ST disk drive)	£2.25
14 Pin Din Socket (ST disk drive)	£2.95
13 Pin Din Plug (ST monitor)	£1.95

AMIGA A500 ACCESSORIES

512K Ram Upgrade with clock	£39.95
A590 20Mb Hard Disk drive	£369.95
Cumana external disk drive	£75.00
Roctec external disk drive	£73.00
Vidi Amiga video digitiser	£99.99
Amiga Stereo Scart Lead	£9.99
Mouse Mat	£3.50

AMIGA / ST SOFTWARE

Power Pack software (ST)	£34.99
Hyper Pack software (ST)	£14.95
Discovery Pack software (ST)	£19.95
Timeworks DTP (ST)	£69.99
First Word Plus (ST)	£56.99
Photon Paint version 1 (Amiga)	£9.95
Photon Paint version 2 (Amiga)	£39.95
Deluxe Paint version 3 (Amiga)	£59.95
AMIGA PACK 1: Batman/N.Z. Story/ Interceptor/DPaint 2	£19.95
AMIGA PACK 2: F29/R.Bow Island/ Robot Monst/DPaint 2	£19.95

BLANK DISKS

All of our blank disks are guaranteed and supplied with labels. Our 3.5" Unbranded disks are either KAO or Sony. All Sony Branded disks are boxed and supplied with labels (all Sony 5.25" disks are supplied with write protect tabs). All disk prices include vat and delivery.



QUANTITY	10	20	30	50	100	200	250	300
UNBRANDED 3.5" DS/DD	5.99	10.99	15.99	25.99	49.00	84.99	99.00	119.99
SONY BRANDED 3.5" 2DD	9.50	18.50	26.50	42.00	80.00	175.00	210.00	245.00
UNBRANDED 3.5" HD	14.95	27.95	39.95	59.99	115.00	225.00	279.95	330.00
SONY BRANDED 3.5" HDD	27.50	53.00	77.00	120.00	235.00	460.00	570.00	680.00
UNBRANDED 5.25" 360K	3.25	6.25	9.25	14.95	27.50	52.50	65.00	77.50
SONY BRANDED 5.25" 2D	7.95	15.50	22.50	36.99	69.99	135.00	165.00	189.99
SONY BRANDED 5.25" HDD	11.99	24.99	34.99	56.99	99.99	195.00	235.00	275.00

ST MIDI

C-Lab Creator SL V3.0
C-Lab Notator SL V3.0
C-Lab Alpha Notator
C-Lab Unitor
C-Lab Export

Steinberg Cubase V1
Steinberg Cubase V1.5
Steinberg Voice Editors
Dr T Tiger Cub

other packages available.

CALL NOW FOR PRICES!

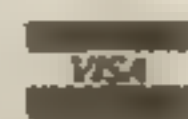
RING TODAY -
LATEST
VERSIONS IN
STOCK AT
AMAZING
PRICES!

BEST PRICES (Dept NCE), Unit A,
Grafton Place, Worthing, West



Sussex. BN11 1QX

Tel: (0903) 700714



SEE OPPOSITE PAGE FOR MORE DETAILS

TELESALES - 10 am till 12 midnight

ANSWERPHONE - 12 midnight till 10 am

ATARI STE

520STE 512K RAM	£329.00
520STE 1MB RAM	£359.00
520STE 2MB RAM	£439.00
520STE 4MB RAM	£549.00

■ STE computers now come with 6 software titles:

First Basic, Music Maker and Organiser, Hyper Paint, Hyper Draw and Borodino.

All STE computers are checked prior to despatch and all prices include VAT and delivery by courier.

STE RAM KITS

DIY 1 KIT - 520STE to 1MB (2 x 256K cards)	£39.99
DIY 2 KIT - 520/1040 to 2MB (2 x 1MB cards)	£119.00
DIY 4 KIT - 520/1040 to 4MB (4 x 1MB cards)	£235.00

All RAM prices include VAT and delivery.

SM124 HI-RES MONOCHROME MONITOR

THE ATARI SM124 HIGH RESOLUTION MONOCHROME MONITOR is recommended for all serious applications on the Atari STF / STE. For example: Word Processing, MEX, DTP, CAD etc etc. Resolution: 640 x 400 **£ 99.99** (including VAT and delivery)

NEW! ATARI STE TURBO PACK

- ★ Atari 520STE computer, mouse + cables etc
- ★ STOS Games Creator, basic, paint package & music package
- ★ 8 top selling games (Indiana Jones & the Last Crusade, Impossible Mission II, Human Killing Machine, Super Cycle, Outrun, Dragons Breath, Anarchy and Blood Money)
- ★ available in 0.5MB, 1MB, 2MB or 4MB RAM

AVAILABLE NOW:

520STE 0.5MB TURBO PACK	£375.00
520STE 1MB TURBO PACK	£399.00
520STE 2MB TURBO PACK	£479.00
520STE 4MB TURBO PACK	£579.00

including vat and delivery

ATARI STFM POWER PACK

- ★ Atari 520STFM computer
- ★ 20 top selling games (Afterburner, R-Type, Gauntlet 2, Super Hang On, Space Harrier, Star Glider, Overlander, Super Huey, Pac Mania, Nebulus, Eliminator, Predator, Xenon, Bombuzal, Bomb Jack, Double Dragon, Black Lamp, Out Run, Star Goose and Star Ray)
- ★ Mouse, Joystick and instructions

ALL THIS FOR ONLY

£299.00

including vat and delivery

REMEMBER - ALL PRICES INCLUDE DELIVERY + VAT

AMIGA A500

all of the packs listed opposite come with:

- ★ Amiga A500 computer + mouse etc
- ★ DELUXE PAINT 2 graphics software

ALL THIS FOR ONLY

£ 365.00

inc vat and courier delivery

A500 BASE PACK

- ★ Commodore Amiga A500 computer
- ★ Modulator, Mouse + instructions

ALL THIS FOR ONLY

£ 339.00

BATMAN PACK

Batman, New Zealand Story and F18 Interceptor

or **FLIGHT OF FANTASY**

Robot Monsters, Rainbow Island and F29

or **SCREEN GEMS PACK**

Days of Thunder, Back to the Future II, Nightbreed and Shadow of the Beast II

CLASS OF THE 90's PACK

CALL FOR DETAILS - OUR PRICE:

£ 529.00

inc vat and courier delivery

ST GAMES ONLY £1.75 EACH

Afterburner, R-Type, Gauntlet 2, Super Hang-On, Space Harrier, Star Glider, Overlander, Super Huey, Pac Mania, Nebulus, Eliminator, Predator, Xenon, Bombuzal, Bomb Jack, Double Dragon, Black Lamp, Out Run, Star Goose and Star Ray.

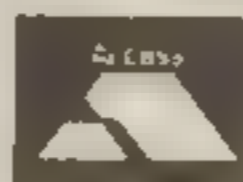
All of the above games are available in the Power Pack software pack for only

£34.99

(requires double-sided internal disk drive)

BEST PRICES

(DEPT NCE), UNIT A, GRAFTON PLACE, WORTHING, WEST SUSSEX. BN11 1QX



(0903) 700714

TELESALES - 10am till 12 midnight

ANSWERPHONE - 12 midnight till 10 am



All prices include VAT and UK delivery unless otherwise stated. All prices / specifications / special offers are subject to change without notice. Goods usually despatched same day as cleared payment is received.

Please make cheques/P.O.'s out to BEST PRICES. Mail order only, callers and collections only by prior arrangement with us. Thank You.

ADD £6.00 INC VAT FOR NEXT WORKING DAY DELIVERY, ADD £25.00 INC VAT FOR SATURDAY DELIVERY, ADD £12.50 FOR AM WEEKDAY DELIVERY, ADD £20.00 FOR 72HR COURIER DELIVERY TO IRELAND



0530 411485

ASHCOM

VISA

0530 411485

YOU NEED 512K NOW HOW MUCH WILL YOU NEED TOMORROW?

THE NEW ASHCOM RAM EXPANSION IS EXPANDABLE TO
1.8Mb
GIVING YOU 2.3Mb OF SYSTEM RAM

FEATURES:

- ★ Real Time clock/calendar with high capacity Nicad battery backup
- ★ Memory disable switch
- ★ Low power consumption
- ★ Buffered Data Bus (Essential for high capacity Ram boards)
- ★ Plugs in as A501 NO SOLDERING!!
- ★ 12 Months warranty
- ★ Configures to 1Mb chip ram when FATTER AGNUS is enabled

ONLY £59.95 for 512K version.

Expander Board £15.95.

Expanded to 1Mb £99.95

Expanded to 1.5Mb £128.95

Fully expanded to 1.8Mb only £154.95

ASHCOM 512K RAM EXPANSION
WITH REAL TIME CLOCK/CALENDAR AND
DISABLE SWITCH ONLY £39.50
WITHOUT CLOCK £34.50
Gives 1Mb chip RAM with Fatter Agnus

All prices include
VAT and delivery

Rams only
£30
per 512K

NEW

BOOT SELECTOR WITH ANTI CLICK ONLY £19.95

Selects DF0 or DF1 as boot drive and eliminates
that annoying click when drive is empty.
Easy to fit - just plugs in

NEW

8372 A
FATTER AGNUS
£59.00

1.3 KICKSTART
ROM
£28.00

READ THIS

FREE REGISTRATION WITH THE
ASHCOM USER CLUB

Fill in the coupon below to register
with the Ashcom User Club and
receive exclusive information on new
Ashcom products. With each free
mailshot you will receive a massive
10% discount voucher.
10% discount off any order received
with registration. No more endless
sifting through adverts for a good
deal.

NAME

ADDRESS

.....POST CODE

**NO OBLIGATION TO ORDER
WHEN REGISTERING.**

Only from ASHCOM, 10 The Green, Ashby-De-La-Zouch, Leicestershire, LE6 5JU

MON - FRI
9.30 - 5.30
SAT 9.30 - 4.00

Telephone: (0530) 411485 Fax: (0530) 414433

TEL: LEEDS (0532) 637988

FIRST CHOICE COMPUTERS

UNIT 8, ARMLEY PARK COURT, OFF CECIL STREET, ARMLEY, LEEDS LS12 2AE

ALL PRICES INCLUDE VAT & DELIVERY. ALL OUR PRODUCTS ARE GENUINE UK SPECIFICATION. FULL REPAIR SERVICE AVAILABLE FREE ESTIMATES

NEW
LOW
PRICES

HARD DRIVES

AMIGA A590 20 MEG

The Commodore A590 has a built-in
unpopulated RAM board, so you can
easily upgrade your Amiga memory
by up to 16 megs without invalidating
your warranty. (Autoboots 1.3 only)

£359.99

Add £45.00 for each 1 meg of
expansion

AMIGA A590 20 MEG
With 2 meg of RAM £449.99

AMDRIVE AMIGA 50 MEG
40MS Access speed £459.00
with autoboot capacity £489.00

DRAM CHIPS (256*4) TOSHIBA,
SAMSUNG, MOTOROLA, INTEL.

Quantity 4.....£5.99 each
Quantity 8.....£5.89 each
Quantity 16.....£5.69 each

COMPUTERS

NEW AMIGA SCREEN GEMS PACK
WITH BACK TO THE FUTURE 2, DAYS OF
THUNDER, KNIGHT BREED, SHADOW OF
THE BEAST II & DELUXE PAINT II
£369.00

AMIGA FLIGHT OF FANTASY PACK
INC F29 RETALIATOR, RAINBOW ISLANDS ROBOT
MONSTERS, D/PAINT 2, MOUSE, MODULATOR,
MANUALS
£369.00

AMIGA CLASS OF THE 90'S
INC: KINDWORDS 2, MAXIPLAN SPREADSHEET,
SUPERBASE II, MIDI/MUSIC SOFTWARE, GRAPHICS
SOFTWARE, DTP, MOUSE, MODULATOR, 10
DISKS, MOUSEMAT AND MORE!!
£519.00

ATARI 520STFM DISCOVERY PACK
INC: 4 GAMES, STOS, NEOCHROME,
FIRST BASIC
£279.00

ATARI 1040 STE EXTRA PACK
INC: 1ST WORD, ST BASE, ST CALC, ST GRAPH, FIRST
BASIC, S.T.A.C. ADVENTURE CREATOR, HYPERPAINT,
PRINCE (STRATEGY GAME), METACOMCO BASIC,
MOUSE AND MANUALS
£429.00

NEW

NEW STAR PRINTER RANGE OUT NOW!

PC200 COLOUR 9 PIN 180 cps
draft, landscape printing, 11 resident fonts
£219.99

PC 24-200 24 PIN 222 cps draft,
10 resident fonts, landscape printing
£264.99

PRINTERS INC LEADS

STAR LC10 MONO.....£159.00
STAR LC200 COLOUR.....£219.99
STAR LC24-200.....£264.99
CITIZEN SWIFT 24.....£299.99
SWIFT COLOUR UPGRADE.....£34.99
EPSON EPL700 LASER.....£919.99

AMIGA 4 MEG CAPACITY EXPANSION BOARDS

512K POPULATED.....£143.99
1 MEG POPULATED.....£165.99
4 MEG POPULATED.....£299.99
RING US FOR DETAILS NOW!

NEW
LOW
PRICES

3.5 INCH DISKS

SONY/MITSUBISHI
BULK 100% ERROR FREE,
135 TPI LIFE TIME
GUARANTEE

QTY£5.99
10£13.99
25£25.99
50£47.99
100£86.99
200£115.99
300£149.99
400£179.99
500£349.99
1000£7.99
DISK LABELS 500£13.99
DISK LABELS 1000

MONITORS INC LEADS

PHILIPS CM8833.....£249.00
COMMODORE 1084 SM.....£259.00
ATARI SM124.....£109.99

- OPEN MON-SAT 9.00AM - 5.30PM
- SUNDAY OPENING 10.00AM - 3.00PM
- THURSDAY NIGHT LATE TIL 8.00PM

- FAST MAIL ORDER SERVICE
- FREE POSTAGE UK MAINLAND
- FREE 2-3 DAY COURIER SERVICE
- SPACIOUS FREE PARKING
- FULL REPAIR SERVICE FREE ESTIMATES

CALL INTO OUR SHOWROOM OR
ORDER BY TELEPHONE
TEL 0532 637988
FAX 0532 637689



VISA

COMPUTER REPAIRS

G B SYSTEMS — LINK

The Repair Specialists

Sinclair 16K, 48K, 128K, +1, +2, +3
 Commodore VIC20, 16, 64, 128, Amiga
 Amstrad 464, 664, 6128, 8256, 8512, 9512
 Acorn Electron, BBC, Master, Archamedics
 Atari 400, 800, ST520, ST1040

All the above are on a fixed labour charge plus the cost
 of the parts

IBM PC, XT, AT, PS2
 Amstrad 1512, 1640, 2086, 2286, 2386
 IBM Clones Any make / model undertaken

The above are charged on a hourly rate

Most printers and monitors repaired

Spares we can supply most parts from single ICs to
 complete exchange boards

Sales(new/secondhand)-Installation-Cabling

Why not save hassle and send us your computer for repair by post

Phone 081 979 5638

86 Walton Road East Molesey Surrey KT8 ODL

150 Space public car park at rear of shop

sinclair QL

EEC LTD MAIN SUPPLIER OF Sinclair QL COMPUTERS & PRINTERS.
 QLs FROM £125. PRINTERS FROM £120.

THE EXPANDABLE SYSTEM FOR SMALL BUSINESSES, BEGINNERS, AND EXPERTS
 QLs COMPLETE. JM fully tested and with 6 months warranty.

TV lead QL software 2.35. QUILL - Word processor, ABACUS -

spreadsheet, ARCHIVE - records, EASEL - business graphics

CUSTOMERS BUYING ONE OF THE QL COMPUTERS ARE GIVEN ONE

YEAR'S FREE MEMBERSHIP TO QUANTA (Help, Newsletters, & 400+ Library Programs -

most free). QUANTA MEMBERS CAN OBTAIN A £5 DISCOUNT

★ The JM QL can run all Programs available for the QL system ★ A JS ROM CAN BE

FITTED & TESTED BY EEC LTD FOR AN EXTRA £25 at time of Order, but not

retrospectively.

£125

★ SPECIAL OFFERS ★

WHILE STOCKS LAST

NEW PHILIPS COLOUR MONITORS

14in high resolution enhanced graphics,
 65 chars, RGB input. Complete with tilt
 & swivel stand and QL lead ready to
 plug-in and go. **RRP £379.99**

£240
 inc VAT

UNIVERSAL DISK DRIVE

1mb 3.5 in cased, complete with built-in
 power supply, mains switch & 13 amp
 plug. EXTERNAL dip switches adapt
 drive for QL, PC, Atari, Amiga, etc.
 Comes with full instruction book, plastic
 cover and free DS/DD disk
£89 inc VAT LEAD £12

UNCASED DRIVES

NEC FD1036A 1mb 3.5in
 1/3 height **£49 INC VAT**
 EPSON 1/2mb 5.25in
 1/2 height **£40 INC VAT**
 QL lead for disk t/face **£12**

CITIZEN LSP-100 9-PIN DOT MATRIX PRINTER. Centronics. Draft 150 &
 175 cps, 30 NLO. Sheet or Tractor Feed. Epson FX & IBM graphics compatible.
 Centronics interface £20, if bought with printer

£120

C. ITOH DAISYWHEEL PRINTER. Serial. Prints at 20 cps, can print 1+3
 copies. Paper width 13 ins, chars per line: 115, 138, or 172; selectable on top
 panel, buffer 256 bytes. Obtainable extras: Centronics Module, 2-col ribbon,
 tractor and auto sheet feeder.

£140

INTERCHANGEABLE PLUG-IN INTERFACE MODULES FOR STAR NL-10 PRINTER.
 SERIAL, PARALLEL/CENTRONICS, IBM/PC, OR COMMODORE

each £20

PRICES INCLUDE VAT. TERMS CWO, ACCESS OR VISA.

Minimum order £10. Carriage £8.00 for printers & QL
 (overseas £20.00). Other items £3.00 (overseas £8.00)

EEC LTD

18 - 21 Misbourne House, Chiltern Hill, Chalfont St Peter,
 Bucks, SL9 9UE. Tel: 0753 888866. Fax: 0753 887149 (AD5)

FULL CIRCLE TECHNOLOGIES (UK) PRESENTS

AT CONCORDE

A supersonic emulator pack for the Atari ST

We have one of the most advanced products in the emulator market for the Atari ST and Mega ST range

RUNS PROTECTED SOFTWARE

Genuine Intel 8 Mhz 80286
 Norton Factor 6.7
 Boot DOS from drive A or C
 Compact SM Technology
 Fits inside your Atari ST
 SUPPORTS: Sound,
 Most ST Harddrives,
 24 GEM/DOS partitions,
 Colour/mono monitors,
 4 screen emulations,
 720Kb format,
 40 & 80 track drives,
 Extended/expanded modes,
 COM1/L PT1 ports,
 The Atari Laser,
 The Atari mouse,
 The ST Internal clock.

AT Concorde Pack includes

An ATonce AT emulator
 A Software/installation disk
 A manual
 Extra Utilities including Patcher
 Full back-up service

Last chance to buy at

£179.00
 before price increase
 inc. VAT & delivery.

STE and MEGA Adaptors
 only £24.00

A must for STE versions, but
 optional for the Mega range

FITTING SERVICE
£25.00

Plus adaptor if required
 ADD £10.00 for next day courier service

COMING SOON The ATARI 520 ST/PC PACK
 An Atari 520 STFM upgraded to one megabyte with ATonce already installed

With the growing demand for better and faster PC
 emulations to use with the Atari ST the ATonce will
 take some beating. Price low and quality unbeatably
 high. For as much as the Atari allows you will enjoy
 the benefits of a compatible AT computer running at a
 Norton Factor of 6.7

UPGRADE YOUR PC SPEED TO CONCORDE FOR
 A VERY LOW £99.99

TO ORDER

send a cheque or postal order to:-
 FULL CIRCLE TECHNOLOGIES (UK)
 133a Parrock Street,
 Gravesend, Kent, DA12 1EZ
 Tel: 0622 677173 Fax: 0474 533280

10 day delivery guarantee



BBS

CHIBA CITY. For Amiga and IBM. D McIntosh 3 Bank Street, Whitburn, W Lothian EH47 0DU. Tel: 0501 44262

LOCH LOMOND BBS. The new board in Scotland for the PC, Atari and Amiga. Echomail, running Telegard 2.5 over 200 GIFs, V22 and V22bis. On-line 24 hrs Call 0389 55762

AFTER HOURS BBS. Freenet & Eidonet Echomail. V22, V2bis. 24hrs Call 0276 52096.

MACH II BBS. Speeds up to 2400. One of the best in Glos. Plenty of files and on-line help. 24 hrs. Call 0242 260 685

OPEN ACCESS BBS On-line 6pm til 8am Mon-Fri and 24 hours weekends. Give our friendly board a call now on 081-427 3974.

THE SATURN BB 10M of software on-line. Sub-boards and much more. Phone 0282-23570 after 10.30pm, or see Prestel 811220044 for info or MBX 219998996.

S-A-C BBS V21, V22, V23, V22 bis for Amiga and PC. Don't miss out - phone now on 0242-260685. On-line 24 hours

BARNEY'S RUBBLE BBS Birmingham-based, 24 hours 300-2400 baud. MNP5 Amiga, IBM PC. Programmers, Penpal, Comms sections. 100Mb downloads plus 30 local

and echo conferences. Fidonet (2:253/153) Call 021-441 1801.

SOUTH Lincs BBS. On-line for news, files, On-line mags and a real club atmosphere. Fun starts on October 15. 11 PM to 6 AM, Monday to Friday. Call 0780 63954.

SCABBS. 22bis. Call 0909 479080

ALTERNATIVE SOLUTION BBS. Telephone: 0742 325232. V21, V22, V22 bis, 8N1, Free. 24 hours. Main PC based, but hoping to expand to include Amiga, Atari, BBC downloads. Already specialised areas for these machines. 'Babble' has stacks of downloads, on-line games, areas for students etc, incl foreign languages. Runs British BBS software. Eazihost.

BATH BBS the only Atari-based multi-line board in the UK. Telephone: 0225 835841/840060. Chat rooms, downloads, games, the Goodmans gateway, and now the ST Format SIG.

Name	Number	Speeds
The Magic Castle	021-430-3761	22bis
L1 For The Amiga	071-377-1358	23
Aardvark's Realm	0727-56939	23
Absolute Access	0425-471370	22bis
Act	061-591-6687	V23
Advance Opus	0482-28367	22bis
Airtel	0342-717800	22bis
Aur-386(access)	0905-52536	22bis
Alan Solomon's	0494-724945	22bis
Alternate Reality	0352-85528	12/75
Alternative Reality	0959-75695	12/75
Amiga Board	0266-510495	22bis

Andrews Fido	0644-44533	22bis
Apple Cracker	0268-781318	12/75
Arena	0625-539063	22bis
Argus Project	091-490-0327	22bis
The Ark	021-353-5485	12/75
Armada	0362-695314	12/75
Arrakeen	071-738-7304	12/75
Asd Opus	0923-247637	22bis
Aspects	061-792-0260	12/75
Atari 88	031-663-9924	22bis
Audio Output	0932-244906	12/75
Avon Opus	0934-29570	22bis
Babbs Tower	0394-276306	22bis
Atavachron	0480-412884	12/75
Banet Board	0865-882872	22bis
Bar	0904-642560	12/75
Barnabas Board	0708 852526	22bis
Barneys Rubble	021-444-2854	22bis
Basingsstoke Opus	0256-728331	22bis
Bathub	0344-55003	22bis
Boson	0705-736025	22bis
Bedford Skyline	0234-741691	22bis
Beeb Tec	0472-276476	12/75
Belle Vue	0274-498221	12/75
Bitmap Brothers	0245-413728	22bis
Boxbox	0634-200931	22bis
Bobs Bizarre	0394-279644	22bis
Body Matters	071-603-7581	22bis
Boffin	031-664-214	12/75
Boog	0252-626233	12/75
Bradford	0274-480452	12/75
Brown Bag	071-404-0897	22bis
Bubbles	0793-851454	22bis
Bullfinch 80	0792-297845	22bis
C-board	0665-883777	22bis
Cardell Opus 1	0222-490722	22bis
Cardell Opus 2	0222-704739	22bis
Carshalton Alan	081-773-0408	12/75
Cath Wyll	0654-770517	22bis
Cats Board	0628 824852	22bis
Cbbs-london	071-249-3238	12/75
Central Line Opus	0534-58969	22bis
Central Opus	021-711-1451	22bis
Chase Wildcat Utp	0543-871562	V22
Chipboard	0532-320225	12/75
Chronos' Lair	021-744-5581	22bis
Cia	081-399-5752	22bis
Club 1512	081-204-8755	22bis
Co-op Board	081-316-6488	22bis
Co-op Board(ors)	061-832-1961	22bis
Co-op Board (nico)	0509-826339	22bis
Co-op B/Mouth	0202-532701	22bis
Co-op P/Mouth	0705-754851	12/75
Communist Demo	081-968-7402	12/75
Ctars For Christ	0926-28294	22bis
Contact	0482-572261	V21
Corby Town Opus	0536-205113	22bis
Corrupt Computing	0203-76831	12/75
Cpm User Group	0753-868198	22bis
Crows Nest	0793-813633	22bis

Crystal Tower	081-886-2813	22bis
Cynodet	0492-49194	12/75
Cynodet	081-346-2816	12/75
Dark Tower	0473-221139	V22
Data Network	081-478-5464	22bis
Dataflex Qbbs	081-543-7020	V22
Datsel	081-680-5330	V22
Mug	081-681-8061	
Datsel Opus	0460-54615	22bis
Daves Opus	0943-830820	22bis
Decbs	081-693-2951	12/75
Dec Cat House	081-200-3033	22bis
Deep Thought	0247-270199	22bis
Diamond Opus	0791-86504	22bis
Diggetal #1	0925-411265	22bis
Digital Matrix	021-705-5167	V22
Direct-line	081-841-1847	22bis
Dwarfen Realm	0376-501036	12/75
Dyalan	0494-778425	12/75
Ebbs-1	0274-541156	12/75
Eddies	0635-71324	22bis
Emerald Tower	071-405-8983	22bis
Empyion	0792-580781	12/75
Emu Opus	041-7622338	V21
Enterprise Hq	0428-872294	12/75
Equinox Ros	0992-760329	12/75
Eureka	0603-250689	12/75
Fabbs	0329-45824	22bis
Fai Opus	0736-794827	12/75
Felstowe Opus	0394-604989	22bis
Fido UK1	0734-713909	22bis
Fineox	0793-828780	22bis
Firm	0273-513872	12/75
Folkstone Tibbs	0303-42690	22bis
Forum-80 Hq	0482-658169	V21
Fox's Den	0689-27085	22bis
Freelance Opus	0460-406261	22bis
Frix	0734-420229	22bis
Gabbs	0705-524805	22bis
Garden	081-464-3305	22bis
Gaslamp	0706-358331	22bis
Gnomes At Home	081-888-8894	12/75

Gods	081-994-9119	12/75
Gourmet Ros	071-430-7880	12/75
Hamnet	0482-465150	V21
Haven	0932-562602	V22
Hawk's Castle	0344-411621	22bis
Health Data	081-966-4360	12/75
Hilary's Board	0277-233488	12/75
Hornchurch	0402-473041	12/75
Humber Bridge	0482-850785	V22
Ichibus (Irishly 3)	0734-484647	22bis
Illegal Technology	071-586-8838	12/75
Image Viewdata	0532-538802	12/75
Index Linked	0227-770403	22bis
Inlet Ros	071-581-3375	12/75
Intel Ace	0832-73003	12/75
Ivory Tower	0245-415321	22bis
Jahbuloh	0254-59352	12/75
Jersey Opus	0534-39389	22bis
Jock's Aways	031-225-5368	22bis
Jolly Roger	081-742-1640	12/75
Junction	0270-580099	22bis
Just The Place	0705-256694	22bis
Kemow	0209-821670	22bis
Keydata	081-675-0072	12/75
Krises Opus	0484-665415	22bis
Kleo's Pyramid	0602-384281	12/75
Kybetesia	081-673-7294	22bis
Lambda Board	031-556-6316	12/75
Lamplight Qbbs	0705-811531	22bis
Lau's Ql Bb	081-751-6096	12/75
Lazer Tower	0272-783733	22bis
Lems	0532-600749	12/75
Lightfinger's Place	0202-485723	12/75
Unelght	0580-212043	12/75
Liverpool Mailbox	051-428-8924	22bis
Log In Tynedale	0434-606639	22bis
Log In The Tyne	091-477-3339	22bis
London	081-455-6687	12/75
London Connexion	081-657-3240	22bis
London Embassy	081-368-1778	22bis
London Mail	081-534-1200	22bis
London U'ground	081-863-0198	22bis

Loony Bin	0703-787489	12/75
Luton Hats n Cats	0582-457336	V22
Mabbs	021-444-8972	22bis
Mactel Hq	0602 455444	22bis
Mactel Metro	081-543-8017	22bis
Mactel Phoenix	0473-610139	22bis
Maggie Opus	041-941-1333	22bis
Magrathea	0376-24402	12/75
Manounian	081-227-8096	12/75
Manhattan	0442-52320	12/75
Marcellet	081-346-7150	12/75
Master Control	0534-58929	22bis
Matrix	051-255-0225	2400
Mbbs Leconfield	0964-550745	V22
Mbbs Mitchham Hc	081-648-0018	12/75
Medway	0634-260032	12/75
Mektroic	081-773-7739	22bis
Mercanet	0203-611943	12/75
Merlin	0274-673481	V22
Mgbbs	0443-733343	12/75
Micro Live	081-567-6500	V21
Microdeal	0726-65422	12/75
Microlog	0422-71921	V22
Microplot	081-316-7402	V22
Microview	081-509-0729	12/75
Mininet	0642-672813	12/75
Mirror II	0272-583815	22bis
Mirrorworld/quest 1	0883-84044	12/75
Monusci	0293-545665	22bis
Mouses Realm	081-941-4333	12/75
Mud	081-998-8899	12/75
Musciworld	0932-245593	12/75
Mwcle	0926-21844	12/75
North York Opus	0423-868065	22bis
N'mpton Castle	0604-22280	22bis
Nw Opus	0788-773984	22bis
Obbs-1	061-427-1596	12/75
Odyssey	0482-670918	12/75
Oldbury Mailbox	021-541-1825	V22
Online Insanity	0203-373280	V22
Opt Health Service	0942-722984	V22
Out Of The Blue	081-668-7687	12/75

GNOME AT HOME

Telephone: 081 888 8894

Protocol: V23 (viewdata)

The Gnome at Home is one of the few Viewdata boards that has stood the test of time and remained ever popular. Run from North London by Glyn

Phillips, it lives on a bunch of networked Beebs of indeterminate origin and age and has a guest line as well as subscribers lines.

PHONE
Blandford
(0258) 451347

BUILD IT YOURSELF!

FAX
(0258)
456046

MOTHERBOARDS

XT TURBO 12MHz, V20, Small size, takes 256k x 4 DIL.	£62.10
AT TURBO 12MHz, baby size up to 4M on board.	£158.00
AT TURBO 16MHz version	£205.00
AT TURBO with EMS 12MHz, up to 5Mb on board.	£188.00
386SX ALL-IN-ONE. 16MHz includes floppy, serial and parallel ports. Takes 1M x 1	£399.00
Memory is available for all these boards. Please call for current prices	

CASES AND PSUS

XT/AT Three 5.25" and 3.5" slots or disks, flip top lid	£44.50
Suitable 180W PSU	£44.85
DE-LUXE. With speed display	£65.00
Suitable 200W PSU	£69.00
MINI TOWER with speed display	£72.50
Suitable 200W PSU	£69.00

I/O ADAPTORS

SERIAL RS232	£16.10
DUAL RS232	£24.10
SERIAL/PARALLEL/GAME	
Com 1, 2, 3, 4, Par 2, 3 Links	£14.50
DUAL SERIAL + PAR + GAME	£25.00
XT SERIAL/PARALLEL/CLOCK/FLOPPY/GAME	£31.50

KEYBOARDS

101 Key XT/AT switch	£46.00
101 CHERRY XT/AT	£65.50

PC-DIY BOOK

If you are not sure how to go about building your own PC, then this is for you! 112 pages full of practical tips for £7.95 inclusive. (NO VAT)

DISPLAY ADAPTORS

HERCULES plus printer	£39.20
DUAL CGA/HERC	£38.00
EGA PLUS	£99.50
VGA 8 bit	£99.00
UNIVERSAL VGA 8/16 bit VGA, EGA, CGA, MDA, Hercules. Standard plus 800 x 600 plus 1024 x 768 resolution	£137.00

MONITORS

MONO 12" green	£73.00
VGA 14" paper white	£165.60
VGA 14" colour	£389.00

Remember! All our prices include VAT.
Call for FREE catalogue
Carriage £2.00 for goods under £40, £9.00 for goods over £40 in total

FLOPPY DRIVES

5.25" 360K.....	£66.70
5.25" 1.2M.....	£80.50
3.5" 720K.....	£71.76
3.5" 1.44M.....	£85.56
5.25" cradle for 3.5" drive adaptor and cables.....	£12.50

DISK CONTROLLERS

UNIVERSAL FLOPPY

DRIVES 380/1.2/720/1.44 drive AT and 386 systems.....	£24.50
XT Hard/Floppy controller.....	£81.00
XT Hard disk controller.....	£65.00
AT floppy/hard controller.....	£107.00

SKELETON SYSTEMS

These consist of motherboard, case and PSU. You add the rest!

XT 12MHz.....	£155
AT 12MHz.....	£250
AT 16MHz.....	£305

BLACKMORE ELECTRONICS LTD
4 The Plocks, Blandford Forum, Dorset DT11 7AA
Telephone Blandford (0258) 451347
WE TAKE ACCESS, VISA AND AMERICAN EXPRESS

AUVIAN TECHNOLOGIES

386 16Mhz vertical floor standing case
super VGA card + VGA colour monitor +
2 x FDD + DOS + 40Mb hard disk .

**FREE DELIVERY,
FREE WORD PROCESSOR
AND**

FREE Supercalc.

Cost £1150.00

**IRLANDEX
150 Appleton Park,
Finaghy, Belfast, BT11.**

Tel: 0232 600075

Fax: 0232 664357

Ladbroke Computing International



12 Months on site warranty

No more waiting weeks for repairs. Our warranty features a 24 hour response time (Mainland U.K. only)

512K STFM Discovery	512K STE Power pack	1Mb STE Power pack	2Mb STE Power pack	4Mb STE Power pack
£299.99	£389.99	£419.99	£519.99	£649.99



Quality 3.5" Disks

All Bulk disks are top quality Sony or Kao, not cheap seconds.

Quantity	Bulk Sony or Kao		Sony Brand Boxed in 10's
	Loose	Boxed	
10	£ 6.99	£ 7.99 <small>Includes x10 Rykod black plastic box</small>	£ 9.99
40	£ 23.99	£ 29.99 <small>Includes x40 Lockable, disc box</small>	£ 37.99
100	£ 49.99	£ 58.99 <small>Includes x100 Lockable, disc box</small>	£ 89.99
150	£ 69.99	£ 86.99 <small>Includes x150 Posmo Stackable disc box</small>	£ 129.99

All disks carry an unconditional lifetime guarantee. Please add 75p P&P for each 10 disks or £3.00 for 100 and above.

Low priced RAM Upgrades

512K STFM/STM fitted	£ 64.99	512K STFM kit	£ 39.99
512K STE SMM's	£ 39.99	512K ST board+chips, fitted	£ 89.99
512K ST board+chips, kit	£ 59.99	2Mb ST board+chips, fitted	£ 184.99
2Mb ST board+chips, kit	£ 159.99	2Mb STE SMM's Kit	£ 149.99
4Mb ST board+chips, fitted	£ 344.99	4Mb STE SMM's Kit	£ 299.99
STFM Blitter chip, fitted	£ 49.99	STFM Blitter chip, kit	£ 39.99
TOS 14 kit (8 ROM's)	£ 39.99	Tos 14 fitted (8 ROM's)	£ 49.99
Amiga 512K RAM upgrade	£ 39.99	Amiga 512K upgrade+clock	£ 44.99

Please check configuration before ordering. Our Atari trained engineers can repair all hardware, including Amigas, in minimum time at competitive prices. Prices quoted for machines not previously tampered with. All upgrades/repairs carry our 90 days parts and labour guarantee.

A4 Flat Bed Scanner

- * 200 Dpi scanner.
- * 16 grey scales or Black/White mode.
- * High quality thermal image printer.
- * Acts as photocopier.
- * Works with ST, Amiga, PC, requires 1Mb RAM.
- * Comes complete with software, cable, thermal paper.
- * Thermal paper available ex-stock at £7.99 per roll.

ST or Amiga Version

£449.99

PC version board

£479.99

IMG scanner still available at an incredible £49.99

Midistudio Master

- 100 tracks storage, 20 tracks playing simultaneously.
- 240 ppq resolution.
- Realtime mix-down via mouse.
- Realtime scrolling arrange window.
- 11 levels of quantise, including humanise.
- Pipeline/Module system.
- Loop record.
- Mid soft keys.
- Works on 1040STF(MXE)

Midistudio only £49.99

Monitors & TV's

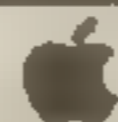
Atari SM124 Mono	£ 109.99
Philips 8833 Colour	£ 249.99
Cmdr 1084S Colour	£ 269.99
The 1084S and SM124 prices apply while stocks last. Phone for availability.	
Philips 15" TV	£ 269.99
Includes: FST, remote control, Scart input, 60 tuner presets, sleep timer and Fastext.	
All displays come with Scart cable. Deduct £10 from Monitors only, if bought with computer.	
Philips 8833 + tuner	£ 299.99

Please Read: Terms of Sale.

We are the longest established Atari dealer in the UK. We have developed an extensive customer service policy which means that we test all Hardware/Software prior to despatch to ensure that goods arrive in working order. Although our prices are not always the cheapest we do endeavour to offer consistently good service and backup. This isn't just our opinion, we were voted "Best Dealer 1989" by the readers of ST World magazine, not for "the number of boxes shifted", but for quality service.

On Site Warranty: We have recently extended our backup programme by including 12 months on site warranty with all ST's at no extra charge. We already offer this service on all Star printers and Philips monitors.

All prices are correct at copy date 27/09/90, and are subject to change without prior notice. All prices are accurate while stocks last. Phone for up to date prices. All prices include VAT, there are no hidden extras (WYSIWYG). Delivery (in Mainland UK) is free, on orders over £100 (add £10 for next day courier delivery). All prices available on Mail Order. Shop prices may differ.



Spectre GCR



"Power of the Mac, without the price."

- * Reads, writes and formats Mac disks.
- * Supports Hard drive and second floppy.
- * Compatible with STE, Stacy.
- * 30% bigger screen area than Mac Plus.
- * Runs 20% faster than Mac Plus.

Spectre GCR
With 128K ROM's
£369.99

We are the consistently longest serving supplier



ST & Amiga 3.5" Drives

CSA 354: ST 3.5" drive.	£69.99
CAX 354: Amiga 3.5" drive.	£64.99
ST Internal drive upgrade.	£64.99

The Cumana ST internal drive requires the ST's case to be modified (full instructions supplied). The external ST drive is a high quality, slim, quiet drive which comes complete with integral power supply and so does not draw power from the ST which could cause problems. Add £3 P&P for drives.



Hard Drives

All our ST Hard drives have a full metal case with push button on/off switch mounted on the front, DMA device no. selector on front, Internal PSU and autopark mechanism. The controller is low power and full SCSI. The software allows Auto booting, up to 14 GEM partitions (255 with TOS 14) and up to 1 Gb per partition.

42HD 42Mb, 11ms	£ 499.99	84HD 84Mb, 24ms	£ 599.99
48HD/40 48Mb, 40ms	£ 449.99	111HD 111Mb, 15ms	£ 699.99
48HD/28 48Mb, 28ms	£ 469.99	142HD 142Mb, 15ms	£ 899.99
81HD 81Mb, 24ms	£ 569.99	177HD 177Mb, 15ms	£ 999.99
Controller board	£ 89.99	H/D kit (no mechanism)	£ 179.99



Printers

All dot matrix printers come complete with IBM Centronics cable. All Star printers include 12 months on site warranty, UK Mainland only.

Star LC-10 140/36cps	£ 169.99	Star FR-10 300/78cps	£ 399.99
Star LC-10 7 colour printer	£ 209.99	Star FR-15 15" carriage	£ 499.99
Star LC-10 Mk II 180/45cps	£ 189.99	Star XB-24/10 80cps SLQ	£ 499.99
Star LC-24/10 170/57cps	£ 239.99	Star XB-24/15 15" carriage	£ 649.99
Citizen 120D 120cps	£ 139.99	Star Laser 8 1Mb RAM	£ 2287.99
Citizen Swift 182/64cps	£ 319.99	Atari SLM804 Laser printer	£ 1099.99
Citizen swift Colour upgrade	£ 39.99	FR/XB range colour upgrade	£ 39.99
84K buffer/3 input switcher	£ 79.99	256K buffer/3 input switcher	£ 149.99

Lantech Network

We are the UK Distributor

- * Uses Cartridge port.
- * 10 Megabit per second data transfer rate.
- * Up to 200ft between ST's.
- * Any computer can be configured as a server to share. Hard, Floppy, RAM disks and Centronics printer.

Lantech server & node

£374.99

Lantech Add on kit

£179.99

Server & Node

£149.99

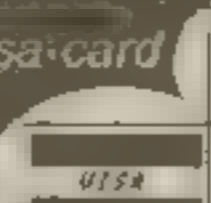
SGSnet node

£99.99

Send SAE for FREE Catalogue.



How to Pay.
You can phone, or use a Visa card details, or send a cheque/postal orders made payable to Ladbroke Computing International. Please allow sufficient clearance time for cheques.



(0772) 203166 Fax 561071

Shop & Mail order premises: 33 Ormskirk Road, Preston, Lancashire, PR1 2QP Open Monday to Saturday 9:00am to 5:00pm. Dealer enquiries welcome. Ladbroke Computing International is a trading name of Walton Marketing Limited. All trade marks recognised.

YOUR SEGA SHOPPING LIST

Master System.....	79.99
Master System Plus	99.99
Control Pad	6.99
Handle Controller	39.99
Light Phaser	29.99
Light Phaser + Cart	44.99
Rapid Fire Unit	5.99
80 Commander	9.99
3D Glasses	39.99
Control Stick	14.99
Mains Adaptor	11.99
* Aerial Assault	29.99
Action Fighter	12.99
After Burner	29.99
Alex Kidd	24.99
Alex Kidd-High Tech	29.99
Alex-Kidd-Lost Stars	29.99
* Alex-Kidd-Shinobi	29.99
Alien Syndrome	29.99
Altered Beast	29.99
American Baseball	29.99
American Pro-Football	29.99
Assault City	29.99
Astro Warrior/Pitpot	24.99
Aztec Adventure	12.99
Bank Panic	17.99
Baseball Nightmare	29.99
Battle Outrun	29.99
Black Belt	24.99
Blade Eagle 3D	29.99
Bomber Raid	29.99
California Games	29.99
Captain Silver	29.99
Casino Games	29.99
Chase H.Q.	29.99
Choplifter	24.99
Cloud Master	29.99
* Columns	24.99
Cyborg Hunter	24.99
Dead Angle	29.99
Double Dragon	29.99
* Double Hawk	29.99
Dynamite Dux	29.99
Emduro Racer	9.99
* Eswat	29.99
F16 Fighter	17.99
Fantasy Zone	12.99
Fantasy Zone TM	24.99
Fantasy Zone 2	24.99
* Grim Ground	29.99
Galaxy Force	29.99
Gangster Town	24.99
* Gauntlet	29.99
Ghostbusters	29.99
Ghost House	17.99
Global Defense	12.99
Golden Axe	29.99
Golfmania	32.99

Golvellius	29.99
Great Baseball	24.99
Great Basketball	24.99
Great Football	24.99
Great Golf	24.99
Great Volleyball	24.99
* Impossible Mission	29.99
* Indiana Jones	29.99
* Jungle Fighter	29.99
Kenseiden	29.99
Kung Fu Kidd	24.99
Lord Of The Sword	29.99
Maze Hunter 3D	29.99
Miracle Warrior	32.99
Missile Defense 3D	29.99
Monopoly	29.99
My Hero	17.99
Ninja	9.99
Operation Wolf	29.99
Out Run	29.99
Out Run 3D	29.99
* Paper Boy	29.99
* Parlour Games	17.99
Penguin Land	29.99
Phantasy Star	39.99
Poseidon Wars 3D	29.99
Power Strike	24.99
Pro Wrestling	24.99
Psycho Fox	29.99
Quartet	24.99
R.C. Grand Prix	29.99
R-Type	29.99
Rambo III	29.99
Rampage	29.99
Rastam	29.99
Rescue Mission	9.99
Rocky	29.99
Scramble Spirits	29.99
Secret Command	12.99
Shanghai	24.99
Shinobi	29.99
Shooting Gallery	24.99
Shooting Games	24.99
Slap Shot	29.99
Space Harrier	29.99
Space Harrier 3D	29.99
Spellcaster	29.99
Spy Vs Spy	17.99
* Submarine Attack	29.99
* Super Monaco-G-Prix	29.99
Super Tennis	9.99
Teddy Boy	9.99
Tennis Ace	29.99
Thunder Blade	29.99
Time Soldiers	29.99
Transbot	9.99
Ultima 4	39.99
Vigilante	29.99
Wanted	24.99

Wonderboy	24.99
Wonderboy-Mon/Land	29.99
Wonderboy III	29.99
World Games	24.99
World Grand Prix	12.99
World Soccer	24.99
Y's	32.99
Zaxxon 3D	29.99
Zillion	24.99
Zillion II	24.99

SEGA GOODIES

Sega Bumbags	5.99
Sega Hat	5.99
Sega Teeshirt L/S	9.99
Sega Holdall	13.99
Sega Watch	14.99

**THE UK
MEGA DRIVE
HAS LANDED**

Megadrive	189.99
Powerbase Converter	29.99
Arcade Power Stick	34.99
Alex Kidd Ench/Castle	29.99
Arnold Palmer T/Golf	34.99
Forgotten Worlds	34.99
Ghouls 'n' Ghosts	44.99
Golden Axe	34.99
Last Battle	34.99
Mystic Defender	34.99
Rambo III	29.99
Revenge of Shinobi	34.99
Space Harrier II	34.99
Super Hang On	34.99
Super League Baseball	34.99
Super Thunderblade	34.99
Thunder Force 2	34.99
Truxton	34.99
World Cup Italia 90	29.99
Zoom	29.99

FREE SEGA BUBBLEGUM WITH ALL ORDERS

ALL ORDERS WILL BE SENT ASAP
PRICES INCLUDE VAT & DELIVERY

* COMING SOON

PLEASE SEND PAYMENT WITH

VISA

ORDER



**OR COME INTO
OUR SHOP
OPENING
SOON**

**TV GAMES
THE SEGA SHOP
92 EWELL BY-PASS,
EWELL, SURREY
PHONE 081 786 7816/
0831 52474
FAX 081 786 7192**

TV Games is an official SEGA stockist UK versions enquiries only.

CONSOLE ZONE

Your weekly guide to the world of console gaming with Richard Frederick

NINTENDO NES

Mindscape is releasing the classic computer game *Mule* onto the NES. "Mule is out-of-this-world fun for Nintendo game fans," says Mindscape. "Mule is a galactic game from another world. This science-fiction contest is the latest planetary power-play manufactured for Nintendo Entertainment System enthusiasts. The action takes place on the barren, newly discovered planet IRATA, where you need MULEs (Multiple Use Labour Elements) to achieve your goal of supreme power. These mechanised marvels will do all your dirty work: growing food, mining and producing energy. With their help you can become the richest, most powerful inhabitant on IRATA. The more MULEs you have, the more power you'll get!"

"On your way to owning the most land, mining the most precious metals and supplying the most food and energy to the peasants (your opponents), don't forget that treachery is acceptable. Wealth, power and opportunity; *Mule* has it all. For an added challenge, *Mule* allows you to play against up to three friends when you have either Nintendo's NES Satellite or NES Four Score. The NES version of *Mule* costs \$49.95."

KEEP IT CLEAN

New of a console care kit has just hit us from America. Here is what they say about it. "The Eliminator is Naki's family of video game care and replacement accessories designed to eliminate and prevent power flashes, blank screens and scrambled pictures. Maintain and clean both game cartridges and system control units for Nintendo, Gameboy, Sega, Megadrive, Lynx and PC Engine. Easy to use, unsurpassed 3M quality, with careful attention to product design, packaging and pricing. The results? Satisfied customers and higher profits. Over 30 million video game systems need

cleaning weekly with systems in 25 per cent of American homes. Help clean up with the Eliminator today!"

"Problems are usually created by an oxide build-up on the contacts and connections. This unit helps prevent problems before they occur. A must for every Nintendo owner. Kit #1 is designed to maintain and clean both game cartridges and the system control unit. The Eliminator is the only professional cleaner that cleans the contacts of the Nintendo in seconds, assuring peak performance." You can contact Naki by writing to: PO BOX 46699, Los Angeles, CA 90046, USA.

WANTED: DEAD OR ALIVE!

We need your video game hints, tips, cheats, maps and high-scores on your favourite games available for the Sega Megadrive, Nintendo Gameboy, Sega Master System, PC Engine, Nintendo Entertainment System, Atari Lynx and SNK Neo-Geo. Send everything to: The Console Zone, *New Computer Express*, Future Publishing Limited, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW or fax 0225 446019.

NINTENDO GAMEBOY

LJN has just released *The Amazing Spiderman* on this popular piece of palm power. "One of the biggest comic book super heroes of all time is about to get much bigger with our *Amazing Spiderman* for Gameboy," says LJN. "The *Amazing Spiderman* features seven levels of web-slinging action, incredible cityscape graphics; amazing 96 per cent awareness among 6-49 year olds."

PLAYING TIPS

NINTENDO NES

Continue playing *Mickey Mouse* by pressing [Button A] and [Start] on the title page after you've lost all your lives. You'll then continue the game from the last level you played.

NEC PC ENGINE

For extra firepower in *Galaga*: press and hold [UP] on the title screen, hit [RUN]. Pick a single ship and the first pod on the select mode and you'll get a triple ship.

ATARI LYNX

The first ten *Chip's Challenge* passcodes:

1: BDHP, 2: JQWJ, 3: ECBQ, 4: YMCJ, 5: TQKB, 6: WMLP, 7: FXQO, 8: KCRE, 9: VUWS, 10: CNPE

GAME OF THE WEEK

The Super Spy • SNK • Neo-Geo • £199.99

The *Super Spy* is a playable and graphically excellent version of *Operation Wolf* with fists! The story according to SNK: "Fighting against a terrorist group who hold several top scientists captive, forcing them to construct a powerful new bomb, you become *The Super Spy* whose mission it is to gather information on their location and fight your way to the rescue. Full screen characters make this game incredible! You control this giant pair of hands and feet as your pummel the punks in Mike Tyson/Bruce



• Super Spy: blasting action on the Neo-Geo.

Lee fashion. Along the way, you can pick up a knife, Colt .45 pistol and a Mini-Uzi automatic machine gun for



extra firepower. Very violent, very satisfying. Go kick some ass with *The Super Spy*.

SEGA MEGADRIVE

Sega's latest release for its 16-bit beauty is *Moonwalker*, based around the Michael Jackson feature-length music video. Mr Jackson apparently even helped design the game! "It's here. The hit music video becomes the first ever hit music video game," says Sega. "It was designed by Michael Jackson himself. His moves match his video so closely, it's uncanny. The animation is unmatched. The stereo sound uses Michael's actual voice. And the music is unlike anything you've ever heard before in a video game. It's only possible with the 16-bit power of Megadrive," boasts Sega.

"The totally evil Mr Big is kidnapping the children of the world. It's up to you to rescue them. In 16 different rounds. Take on Mr Big's deadly henchmen in Club 30 using your kicks, jump spins, punches and hat attacks. Battle wild dogs and young punks in the high-rise garage. Fend off zombies in the cemetery. And dodge laser beams in Mr Big's high-tech hideout. This game's got it all. All of this to the stereo sounds of *Smooth Criminal*, *Beat It*, *Thriller*, *Bad* and *Billie Jean*. Finally you transform into a giant flying robot."

PLAYING TIP

Walk this way in *Lake Deep* to complete Alex Kidd in miracle world: Sun, Squiggly Lines, Moon, Star, Sun, Moon, Squiggly Lines, Fish, Star, Fish, Crown.

SEGA MASTER SYSTEM

Mirrorsoft is to release its famous *Speedball* computer game onto the Sega Master System on the Imageworks label. "It's fast, it's exciting, it's the award-winning game from the Bitmap Brothers, it's *Speedball* on the Sega Master System," says Mirrorsoft.

"An original future sport strategy game, *Speedball* combines stunning graphics and digitised sounds with fast and dangerous gameplay, with two teams vying for control of the steel ball and ultimate victory. Strategy and speed are essential for success, with players jousting and tackling in their competition for the ball. Weaponry ensures that you can blow the opposition away - if you're fast enough. Another dimension is added to *Speedball* with tokens which appear on the floor of the speed dome, which, when collected, provide players with an assortment of power-ups such as faster movement, better weapons, etc - essential if you're to survive *Speedball*."

Utilities Disk 14 • C64 • ICPU

Commodore 64 owners could be forgiven for thinking that there's no PD for their machine. They would be mistaken however, as ICPU, every Commodore owners favourite user group, has plenty of PD for the old beast.

Utilities disk 14 may be a crap title, but it's full of a wonderful assortment of public domain utilities.

Future Writer is a word processor with a difference. As you type away, music plays away in the background. Very good it is too, taking advantage of the C64's advanced sound facilities. There are a choice of tunes to play, and you can select different character sets to type with (although they don't print on paper as they do on screen). It's a fairly silly idea, but fun all the same.

There are a couple of utilities for making life with your disk drive easier, some printer utilities, and a program that allows you to create your own menu screens.

Before you can get hold of any of this though, you'll need to become an ICPU member. To do so you'll need to send off a £16 membership fee. Mind you, after that all PD software is free, and all that is required are blank disks and stamps to cover the postage.

Adventure Writer System • ST
• Exmoor Software

Adventures are difficult programs to

THE PD COLUMN

There's a wealth of free software out there which is yours for the price of a disk. This week Adam Waring looks at some of the gems which are out there just waiting to be discovered...

write. BASIC is slow, and not really structured for the huge amount of text data needed. Adventure Writing System - ADSYS for short - aims to provide a friendlier way of writing adventure games, without being over-complicated.

One or two sample adventures are included on the disk. There's the one that started it all, the classic *Colossal Caves* for you to get lost in. You can look at the code used to create them, useful for understanding how the system works, and a good place to start for writing your own adventures.

You can define locations, objects, descriptions and puzzles with relative ease. All that's really required is a devils mind, bent on thwarting any player's progress.

Once you've written your adventure masterpiece, what should you do with it? Well may I make a suggestion - why

not put it into the public domain so that others can enjoy the challenge?

Accessory Compilation • ST
• Elmssoft • Acc 1, 2, 3, 4

Desktop accessories are mighty useful things. Almost at will, you can stop what you're doing, and load something else for a few minutes. Then you can go back and resume the previous task.

Just imagine, you're wading through a boring set of accounts (or something), when you suddenly get the urge for a game of *Breakout*. You never know, it could happen. Normally, you'd have to save all your data, quit the program and load up your game. And then if your boss comes in you'd panic as you try desperately to switch off and load the accounts again without him noticing.

With an accessory, it would simply

be a case of clicking on the accessory menu, the game would load in an instant, and you could play away with your hearts content - until you hear the creak on the floorboards outside your door. Then you'd just close the application, and keep your job!

Of course it's not just games that make desk accessories. Plenty of utilities, desktop tricks and mini-programs can reside there too. *Word Count*, for instance, is great for using with a PD word processor which doesn't happen to have one built-in.

There are 80 of the things on these two double-sided disks! The only problem you'll have with these programs is deciding which ones to use!

Jeopard • Amiga (1Mb)
• Senlac • Disk 410

■ you're a power-crazed megalomaniac,

AMIGANUTS UNITED

OFFICIAL U.K. DISTRIBUTORS
OF THE FANTASTIC T.B.A.G.
DISKS FROM MERLIN U.S.A.
FOR ONLY
£1.80 EACH



LIBRARY PRICES START AT
ONLY £0.50p (WITH DISK)
NO MEMBERSHIP CHARGES
NOW INTO OUR FOURTH YEAR

A SMALL SELECTION FROM THE LIBRARY, WORTHY OF ADDING TO YOUR COLLECTION

- 581:** SID V1.6 by Timm Martin, excellent CLI replacement prog. £2.00
- 599:** PONTOON, A well written version of this card game by Chris Labrum. £2.00
- 521:** ALL NEW STAR TREK, With AUTHORISED English Instructions. £4.00 (2 DISKS)
- 639:** C MANUAL by Anders Bjerin. This is a three disk set, containing over 200 pages of instructions on opening windows/screens/graphics/gadgets/sprites etc. with a host of examples/source progs. (KNOWLEDGE OF THE CLI REQUIRED) £6.00
- 649:** BUDBRAIN Excellent TWO DISK MEGADEMO. (for adults only) £3.00
- 640:** 8 GAMES The train set game makes this one a MUST for the kids. £2.00
- 658:** UTILS with ANIMBRIDGE. (alter anim files), plus many others £2.00
- 680:** WORD SQUARE SOLVER - Solve magazine puzzle squares with this one. £2.00
- 686:** COMPUTER CONFLICT A drive you up the wall, two player space game. £2.00
- 699:** FRANTIC FREDDIE A C64 conversion by Bignonia Software + 2 demos £2.00
- 700:** TETRACOPY An excellent copier program by the team that did XCOPY £2.50
- 705:** AMIBASE PROFESSIONAL An excellent new D/Base prog by Keith Grant £2.50
- 706:** 3 NICE GAMES by PH Software. The Turn, Tricky and Marble Slide £2.50
- 717:** MUSIC DISK with 53 tracks lasting OVER 90 MINS! (A MUST) £2.00
- 728:** UTILS with BOOT-SHOP, plus latest NOISETRACKER V1.2 and others. £2.50
- 736:** IMAGE TAMPACK VOL II: This contains a really good new demos. £1.50
- 740:** MED V1.12. The VERY LATEST update of this FANTASTIC music utility. It has been re-vamped with a host of new additions, including synth sounds £2.50
- 741:** NorthC V1.2 The VERY LATEST update from Steve Hawtin, this new set comes on TWO DISKS and is packed with extra progs/examples/advice on bugs etc. £5.00

LATEST CATALOGUE DISK HAS SPECIAL MONEY SAVING OFFERS, COMPETITION DETAILS ALONG WITH TWO NICE GAMES TO PLAY WHEN YOU GET FED UP READING ALL THE FILES. THE PRICE FOR ALL THIS?...ONLY .75 PENCE...YES...75 PENCE!...SEND FOR YOUR COPY!

SORRY, TO KEEP OUR PRICES AS LOW AS POSSIBLE, WE DO NOT ACCEPT CREDIT CARDS.

ALL PRICES QUOTED ABOVE INCLUDE RETURN POST AND PACKING

Make cheques/Postal Orders payable to: AMIGANUTS UNITED

169, DALE VALLEY RD, HOLLYBROOK,
SOUTHAMPTON SO1 6QX. PHONE 0703 783680

PLEASE NOTE: Some demos contain language that may be considered offensive.

Lorenzo's Domain

Amiga P.D. & Shareware

A SMALL SELECTION FROM A GREAT COLLECTION

- MUSIC**
- 101: Definitive Docklands by H.C.C.: Fantastic colour pictures and music
 - 102: Lorenzo's music utility disk: Rippers and Players galore
 - 103: Digital Concert no 4: by Flash Productions
 - 104: Lorenzo's musical delight
 - 105: Future composer
 - 106: Noise Tracker Collection (3 disks)
 - 108: Freek'd out by the Crusaders
 - 109: Flash by Queen (2 Disks)
 - 111: Rave Demo (1 Meg) by H.C.C.
 - 113: Dmob Music Demo No 2
- DEMOS, INTROS & MEGADEMOS**
- 204: 8 radical demos by Abandon, Cave, Dual Crew, Kefrens, Mahem, Vision etc
 - 205: The Dexon Megademo. Coool stuff baby
 - 206: 5 major demos including: The Revenge Of Babbinsen, Cebit 90 by Red Sector
 - 207: 6 of the best including: Follow Me by Red Sector, Celtic, T.P.L etc
 - 208: The Cryptoburners Megademo 2
 - 209: Scoopex Mental Hangover
 - 210: Alcatraz Megademo 4 (3 disks)
 - 211: Outsiders Acid Demo
 - 212: The Kefrens Megademo 8 (2 disks)
 - 213: The Dragons Megademo
 - 214: The Silens Megademo
 - 215: The Predators Megademo (2 disks)
 - 216: The Silens: Fantasy: (2 disks) great pictures
 - 219: Bacteria: The Crusaders
 - 220: Collection of intros including Trip to Mars and Meg Zarfaz
 - 221: Popeye Meets the Beachboys: It's ravin mad pal.
 - 222: BudBrain Mega Demo X (2 disks)
 - 223: Deathstar Mega Demo (2 disks)
 - 224: H.C.C. Textile Demo: Hilarious
 - 226: Freddy Kruger Rap
 - 227: Mindwarp Megademo Vol II
 - 228: Robocop demo.
- GRAPHICS PICCY'S AND ANIMATION**
- 300: Graphic Slideshow by The Dark Wizard
 - 301: IFF Picture Show
 - 304: Fish 295 Mandel Mountains
 - 305: Lorenzo Graphic Utilities
 - 306: Newtek Demo Reel 3 (1 Meg) (2 disks)
- 307: Luxo Teenager animation: (1 meg) A very good animation of a desk lamp
- 308: Nightbreed Slideshow by H.C.C.: These are the best pics I've seen yet.
- 309: Forgotten Realms Slideshow by Fraxion
- 311: Viz Slideshow: 12 Great digitised pics from VIZ 1990 Calendar
- 400: Puggs in Space by Dionysus: Great anim and Brill music. Yeehaa
- 403: Agatron Slideshow: More great stuff from Tobias Richter
- 404: Magician & Runner: Very good
- 405: Agatron Anim £25: The Run (1 Meg) Could be his best yet
- 407: Walker 1 Animation (1 meg). Been around for a while. A classic
- 408: Walker 2 Animation (1 meg). Yep! You got it, another classic
- 412: The Education of Cool Cougar (1 meg): Brilliant
- 413: The Probe Sequence
- 414: Space Ace Demo: (1 meg) Animation Sequence from game
- 415: Fillet the Fish Animation by Jester Bros International
- GENERAL**
- 500: Jazzbench: Jazz up your workbench
 - 501: Fonts Bench: Loads of fonts
 - 502: Wordprocessor
 - 503: Spreadsheet
 - 504: Database
 - 505: Ghostwriter and Rainbowriter: Intro Writers
 - 506: Dope Intro Writer
 - 507: Virus Killer disk
- GAMES**
- 700: Lorenzo Games Collection 1: Old faithfuls Invaders etc
 - 701: Fish 347: Drip Game: Pure dead brilliant
 - 702: Star Trek 3: (2 disks) absolutely fantastic
 - 703: Return to Earth
 - 704: Blizzard Game
 - 705: Monopoly
 - 706: Star Trek (1 meg) 3 disks
 - 707: Paranoid: Arkanoide like game with its own screen editor.

**ALL DISKS
99p
each**

ONE DISK FREE WITH EVERY 10 ORDERED PLUS EXTRA SURPRISES

No membership. FREE catalogue with every order. When you choose from Lorenzo's Domain you can be sure of getting the best VIRUS FREE P.D. around. We aim to have your order back in the post within 2 hours. Send your order with a cheque or P.O. and 50p towards p&p to:

LORENZO'S DOMAIN
30 COLQUHOUN SQUARE, HELENSBURGH, G84 8AQ



• Live out those dreams of global domination with Jeopard.

and have designs on becoming the ruler of the whole world, then *Jeopard* is just the thing for you.

Jeopard is in fact identical to the famous board game *Risk*, except that you play on the computer instead. The map is identical, even down to the graphics that appear in the oceans.

The map is split into six continents,

and further into individual territories within those continents. Up to six players can take part in the quest for world domination.

The idea is to take control of these countries by force. Armies are allotted to each player, and by strategic manipulation, must spread through the world by conquering neighbouring territories.

Unfortunately there are two things against *Jeopard*. One is that the interlaced mode has been so unless you have an expensive monitor it flickers like crazy.

The other is that there isn't an option for the computer to play. This means that you have to have at least one chum to play properly. ■

WHERE TO GO

• ICPUG, The Membership Secretary, PO Box 1309, London N3 2UT. Telephone 081-345 0050. Whatever computer you own, as long as it's a Commodore, ICPUG are there to help. They're a friendly bunch, but you've got to be a member. The price per disk copied? Nil, naught, zero, zilch. Once you've paid your membership fee, everything's free from then on.

• Senlac Software PD, 14 Oaklea Close, St Leonards On Sea, East Sussex TN37 7HB. Telephone 0424 753070. Plenty of Amiga PD for the asking. There's a minimum order of five disks, where you'll be charged £1.75 a disk.

• Exmoor Software, Queen Street, Lynton, Devon EX35 6AQ. Exmoor provide an ST public domain service with a difference. You choose the programs to go on your disk! A single sided disk costs £2. Double-sided are £2.50.

• Elmsoft, PO Box, Loughton, Essex IG10 2EE. They may have named themselves after a tree, but I 'wooden' hold that against them! (Great gag, eh readers? No, oh well.) Prices start from a measly 90 pence.

STRATEGY

PLUS

THE INDISPENSABLE GUIDE TO PC GAMES

STRATEGY ADVENTURE SIMULATIONS

NO ARCADE GAMES

Price £1.95 from most newsagents. In case of difficulty, phone 081-567 7740.
Subscriptions £18 for 12 issues. Order from our credit card hotline: 081-579 2612

CHOICE Software

MAIL ORDER ONLY

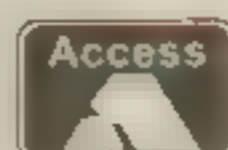
Dept 'NCE', 137 RICHARDS ROAD
HEELEY, SHEFFIELD, S2 3DW

Please make cheques/PO payable to
CHOICE SOFTWARE, or ring the
Credit Card Hotline (Access/Visa)

Mon - Fri...9.00am-5.30pm

Sat...9.30am-5.00pm

PHONE (0742) 588311



ALL PRICES INCLUDE POSTAGE
(UK only) UNLESS STATED.

VISA

TITLE	AMIGA	ST
Gunship.....	£15.99	£15.99
Stunt Car Racer.....	£15.99	£15.99
Manchester United.....	£17.50	£13.99
World Cup Compilation.....	£17.50	£17.50
F'Ball Manager World Cup.....	£13.99	£13.99
Shadow Warriors.....	£17.50	£13.99
Dynasty Wars.....	£17.50	£13.99
Batman The Movie.....	£17.50	---
Chase HQ.....	£17.50	£13.99
Dan Dare 3.....	£13.99	£13.99
E-Motion.....	£17.50	£13.99
Fighter Bomber.....	£21.99	£21.99
Operation Thunderbolt.....	£17.50	£13.99
Pipe Mania.....	£17.50	£13.99
Rainbow Island.....	£17.50	£13.99
Robocop.....	£17.50	£13.99
Sherman Mk4.....	£17.50	£13.99
F29 Retaliator.....	£17.50	£17.50
F16 Combat Pilot.....	£17.50	£17.50
Warhead.....	£17.50	£17.50
688 Sub Attack.....	£17.50	---
Champions of Krynyn.....	£21.99	---
Sim City.....	£21.99	£21.99
Amos - Game Creator.....	£34.99	---
Bat. of Brit/Their Finest Hour.....	£21.99	£21.99
Damocles.....	£17.50	£17.50
Skidz.....	£13.99	£13.99
E. Hughes Int. Soccer.....	£17.50	£17.50
Dark Century.....	£17.50	---
Time Machine.....	£17.50	£17.50
Dynamite Dux.....	£15.99	---
Turrican.....	£13.99	---
Midwinter.....	£21.99	£21.99
Rotox.....	£17.50	£13.99
Kick Off 2.....	---	£17.50
Player Manager.....	£13.99	£13.99
Castle Master.....	£17.50	£17.50
Italy 1990 Winners Edition.....	---	£13.99
Thunderstrike.....	£17.50	£17.50
Flood.....	£17.50	£17.50
Imperium.....	£17.50	£17.50
Heroes.....	£21.99	£21.99
Falcon - Mission Disks Vol 2.....	£13.99	£13.99
Midnight Resistance.....	£17.50	£17.50
Operation Stealth.....	£17.50	£17.50
Corporation.....	£17.50	---
Shadow of the Beast 2.....	£24.99	---
Back to the Future 2.....	---	£17.50
Venus - the Flytrap.....	£17.50	£13.99
F19 Stealth Fighter.....	---	£21.99
Loom.....	£21.99	£21.99
Anarchy.....	£13.99	---
Wings of Fury.....	£17.50	---
Codename Iceman (1meg).....	£27.99	---
Gravity.....	£17.50	£17.50
Hard Drivin.....	£13.99	£13.99
Unreal.....	£21.99	---
BSS Jane Seymour.....	£17.50	£17.50
Lost Patrol.....	£17.50	---
Mr. Do! Run Run.....	£17.50	---

Please note: All prices include VAT & 1st class postage. Most items available to order (24 Hours), subject to availability.

** ACCESSORIES **

3.5" Disk Boxes, Lockable with Perspex Lid,	
40 Capacity Box.....	£5.50
80 Capacity Box.....	£6.99
100 Capacity Box.....	£8.49
100 Capacity Banx Box (stackable).....	£10.95
14" Swivel/Tilt Monitor Stand.....	£14.50
Universal Printer Stand (80 Col.).....	£6.99
Star LC10 Black Ribbon.....	£2.99
Star LC10 Colour Ribbon.....	£6.99
Star LC24 Black Ribbon.....	£4.59
Ribbon Refresh (Spray) Cut Costs!	
Revitalise old ribbons for ONLY.....	£8.95
3.5" Disk Cleaning Kits (inc. liquid).....	£2.49
5.25" Disk Cleaning Kits (inc. liquid).....	£2.49
5.25" Disk Notcher.....	£4.99

3.5" DSDD 135 TPI BULK DISKS

Pack 10 (inc Case & labels).....	£6.50
Pack 25 (inc labels).....	£13.11
Pack 50 (inc labels).....	£24.84
Pack 100 (inc labels).....	£46.92

3.5" DSDD 135 TPI "SONY" DISKS

Pack 10 (inc. Case & labels).....	£7.50
Pack 25 (inc. labels).....	£15.30
Pack 50 (inc. labels).....	£28.99
Pack 100 (inc. labels).....	£56.67

(Please add £2.20 P&P for all disk orders)

NOTE: ALL DISKS ARE 880K AND 100%

CERTIFIED ERROR FREE & FULLY GUARANTEED

512K AMIGA MEMORY EXPANSIONS, DOWN IN PRICE!!!
1Mbit DRAMS, Disable Switch

	RETAIL	OUR PRICE
Real Time Clock.....	£49.50	£44.55
Memory Only.....	£46.95	£42.25

AMIGA VACCINE BOOT BLOCK PROTECTOR

Hardware Protection against
Bootblock Virus NOW ONLY £17.95

** JOYSTICKS **

Cheetah 125+.....	£8.99
Star Probe.....	£14.99
Cruiser.....	£9.99
Quickjoy 6 Jet Fighter.....	£13.95
Quickshot Deluxe Turbo.....	£9.99



If you're the sort of person who sees a train as an infuriating mode of transport that is always delayed, never has a buffet and costs too much because of BR's surreal advertising, you'll probably never be a convert. If however, there's something about the Orient Express, Mallard and the mention of George Stevenson that stokes a little fire somewhere, there's hope for you yet.

While it takes a certain dedicated breed to spend long hours on the platform collecting numbers in summer and winter, those of us who yearn for the dry sulphurous heat of the cab (*Yum yum... egg and bacon on the fireman's shovel - Ed.*) or the wood and oil smell of the signalbox can get some way toward our dreams with the train software available for our micros.

This software falls into three basic categories. First is the schoolboy's dream - the engine driver. These are simulations that put you in the cab of either a diesel or steam locomotive, give you the controls and let you loose on a pre-set journey to test your abilities.

Secondly, there's the overall railway company simulation where you have to build and run an entire railway, making all of the decisions involved from building lines, choosing trains and siting stations to what route a train will take.

Finally, and saving the best until last, there are more specific simulations in which you play the controller of a particular station, section of line, type of loco or similar. Although these are railway orientated, they constitute a fine multi-dimensional puzzle, and after a few minutes play the action can become so rapid and engrossing that it's easy to forget the railway scenario.

Colleagues scoffed at the idea of train spotting but it wasn't long before their over the shoulder view led to

Train spotting is a peculiarly British hobby, but its computer incarnation isn't as boring as you might imagine. Keith Pomfret put on his anorak and joined signalman Doug Thompson on the computer tracks.

demands that they should have a shed master, three signalmen and even a depot manager.

It's worth emphasising that to discount railway software because of the image of the train spotter is to deprive yourself of some of the finest multi-dimensional puzzles that exist.

To attempt Kings Cross 1976 in the rush hour with a strict timetable and limited tracks and platforms, and then realise that there are always one or two more trains to slot in than there are slots for them, is as engrossing a pastime as any session of chess, backgammon or cribbage.

Whichever software is for you: driver, signalman or manager; you will get many hours of pleasure, and an interesting insight into the jobs of the professionals who keep the country on the rails.

In real life Doug Thompson pulls the signals on the Nene Valley Railway near Peterborough. However, we dragged him away from the pleasant peace of his signal-box in the fenlands and swapped his levers for a PC keyboard. After a month or so playing a range of simulations from SIAM he brought back this report:

These simulations give you the opportunity to try and control train movements within a number of

options: a terminus station, a through station, a whole section of line, or a fleet of locomotives.

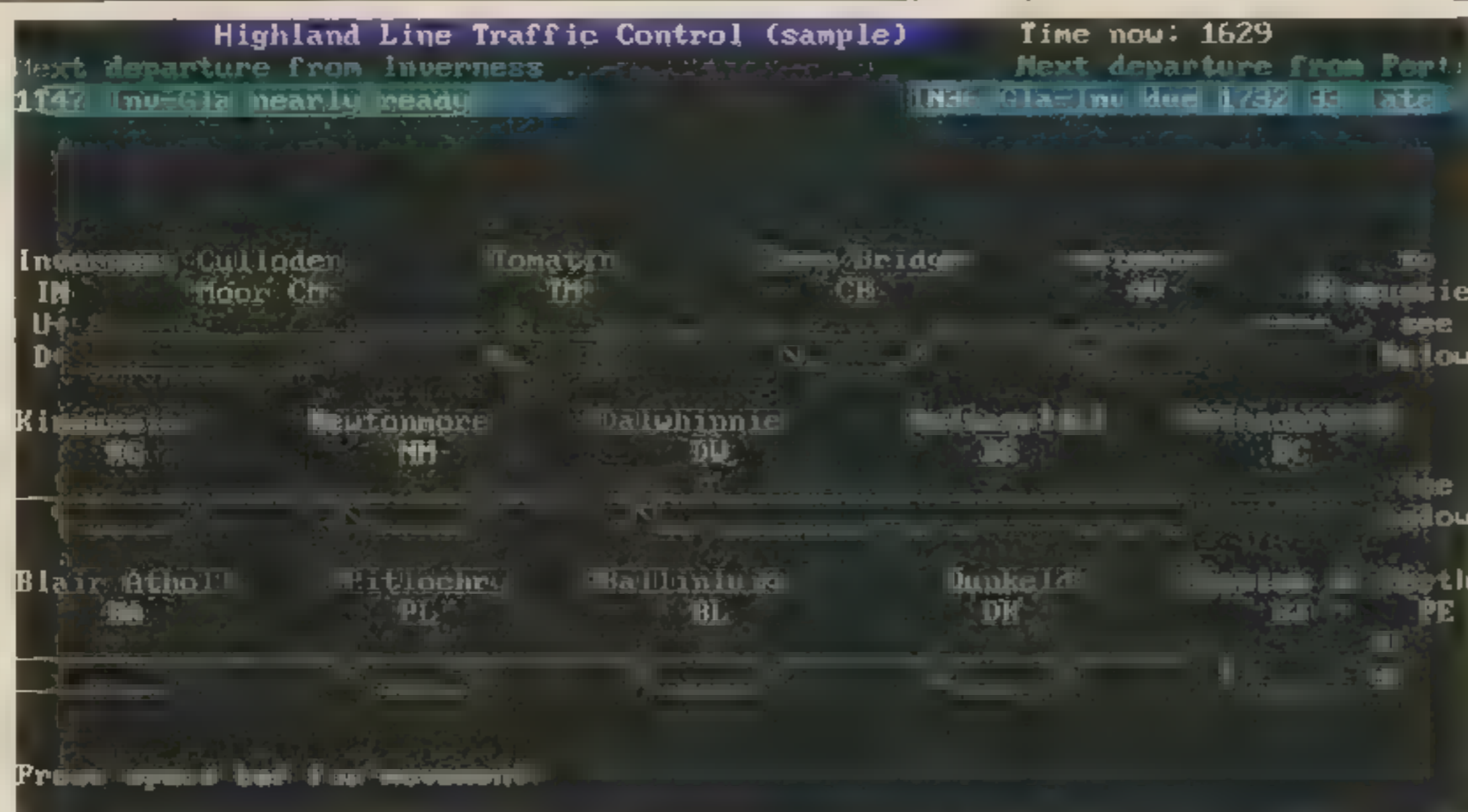
In the SIAM range there are some 30 simulations that will appeal to the railway enthusiast and to those who like a mathematical based problem. I have looked at several in the series. Here's what I thought of them.

BATH GREEN PARK 1961

This is set in the days of steam (some would say the good old days). Bath Green Park station no longer exists, unless you number the local Sainsburys among your loco-sheds. But it was once the busy terminus of the Somerset & Dorset Railway and a major stop on the Midland Railway network.

You are in charge of all train and locomotive movements in the station area which includes the Midland line to Bath Junction, the Somerset & Dorset to the double track section just after Midford and the two sheds (MPs) at Bath Green Park.

Your shift starts at 1.30am on a busy summer Saturday and ends at 19.45 the same day. During this time you have to make sure that you have the correct type of locomotive available for each train. You have to turn each one so they are going forwards (unless it's a tank engine) and make sure they have filled up in advance with plenty of coal and water. At 01.30, you have a little breathing space which to your signals.



• Keeping track of the traffic in the Scottish Highlands. The only passing places are in stations.



• A bit of a poser this one: keeping the traffic flowing smoothly one busy lunchtime at Paddington. The simulation doesn't explain why they leave it to the last minute to announce a train which has been there half an hour though.

The first scheduled arrival is not until 02.20, which gives you time to service as many locos as possible and place them in the sheds so that you can get at them as required. Bath Green Park station only had two platforms and at certain times during the day you have the next train due into a platform within a few minutes of the last departure.

Most of the trains that come from the Midlands will reverse at Bath, have a new loco put on the front and then carry on down to Bournemouth. Some of the heavier trains, which require two locos, will be returning later in the day, again reversing at Bath and then heading back towards Brum. The train times are based on the actual time table that was used in 1961, so you can get a feel of what it must all have been like.

This simulation does not include any freight trains because this would make it too complicated. You can select the level that you feel you can cope with and I found that I had to play through the whole simulation two or three times on the easiest level before I could tackle the second level.

I have so far reached level four out of the five; and this means you get extra relief trains running to cope with the summer traffic, as well as locomotives that come in needing repairs and which are therefore not available for some time.

This can be a very frustrating situation, but also very realistic (even of BR today). You can, of course, have trains running late and even some running early, which can make it difficult to decide where to platform the train. Or do you hold the platform empty and keep

another train waiting. The choice, as they say, is yours.

An essential feature is the ability to save the game as you go, very important because it would take upwards of three hours to go through the whole simulation. This also has another useful advantage in that, if you can see an awkward situation coming up, you can save the game before trying a solution. If it doesn't work, re-load the saved game and keep trying other approaches until you crack it. You can tell how well you

are doing at the end of each session because you get an efficiency mark. My best on the easier levels is 95 per cent, on level four I am down to 75 per cent!

Interestingly enough, I already had this simulation in my collection before these reviews were planned. I can confirm that it is as enjoyable 12 months on as it was the first time.

KINGS CROSS 1976

Kings Cross is the busy terminus of what used to be the London to North Eastern Railway (LNER). This simulation is set nearer to the present, in the days of diesel locomotives – with the high speed trains (125s) just coming into use.

You control the lines in, through the Gasworks Tunnel, and the 11 platforms. The West Bay is used for unloading parcels and motorail vans and there is a small stabling point for refueling the locos.

Your day starts at 06.30 and goes through until 14.45. During this time you naturally have to get the trains into a platform as quickly as possible. Once they have their passengers have disembark you either send the trains to the depot and get ECS (Empty Coaching Stock) working, or you put another locomotive on the front ready for departure to the North.

You also have to run the local electric services to Royston and these can only use platforms 9 and 10 because they are the only ones that have overhead power cables. You will also have ECS working from the depot to form trains for the North.

As with Bath Green Park, trains can arrive early or late, which can cause major difficulties. I enjoyed this simulation as I have spent many an hour standing at the end of the platform watching an almost endless stream of rail movements. I must admit I found this one slightly easier than the Bath Green Park simulation, but it is a challenge nonetheless.

WEST HIGHLAND LINE 1984

In this you have control of the Scottish line from Craigend Junction (which is just outside Glasgow) to Oban and Fort William. You are presented with a screen showing the various passing points along the line. You start at 06.30 and finish at 20.00; a very long day when you have to concentrate on getting your trains to their destination with as little delay as possible.

This is not as easy as it may seem because the passenger trains have to be given priority over the freight trains and you have to calculate, from where the trains are on the line, how long they will take to get from one section to another.

There are temporary speed restrictions due to engineering works or operation difficulties at either Fort

PC AND ST PLATFORM

The name synonymous with railway software is SiAM. Although it does not produce simple train driver simulations, it has managed to capture the market for railway games among the 'serious' PC users and offers a choice of 33 programs which cover a range of situations such as through-stations, termini, fleet managers, railfreight and shed masters.

These 30-plus programs are well thought out and accurate, and quickly gained the Express seal of approval. All cost £15 and are available for the PC and ST. So if trains are your subject and you know someone with a spare £500,

this will definitely get to the top of your letter to Father Christmas. (SiAM is on 0442 67220.)
Class 45 Fleet Manager, Shedmaster, Bounds Green, Liverpool 1972, Liverpool 1985, Euston 1987, Crewe 1986, Bath 1961, Birmingham 1984, Glasgow 1987, Class 47 manager, Highland Line 1984, Class 50 Fleet Manager, Shedmaster Finsbury Park, Kings Cross 1954, Kings Cross 1976, Kings Cross 1990, Doncaster 1986, Shrewsbury 1962, West Highland 1984, Leeds 1989, Railfreight Buxton, Exeter 1987, Shedmaster Old Oak, Paddington 1959, Paddington 1972, Paddington 1986,

Class 50 Fleet Manager, Reading 1959, Reading 1987, Burlington Northern, Penzance 1932, Penzance 1955, Penzance 1984. From MicroProse, for the PC only, there's the Sim City-like Railroad Tycoon. This allows you to run a complete railway in the UK or the US starting from scratch or from a demo set up.

Every decision, from the route to the formation of the trains, and whether to compete with other railroads is included. It's not as detailed as the SiAM games but Railroad Tycoon gives a broad overview for the megalomaniac train spotter. It costs £34.99.

AMSTRAD CPC

The CPC would have missed the train altogether. I hadn't been for a couple of steam engine driver simulations from Hewson. Southern Belle and its successor, Evening Star, put you on the footplate of a couple of the most famous journeys in the UK at the time when a head out of the carriage window still meant an eye-full of hopcoal.

All of the controls, including the steam regulator, whistle and even coal shovel, are available and you have a choice of journey. Whether it's London to Brighton at the head of the Southern Belle or the slightly more difficult Pines Express from Bath to Bournemouth, there's a lot of good gameplay, only let down by the 8-bit display of the CPC.

The programs cost £17.99 and are also available for Spectrum, C64 and BBC.

Hewson is on 0235 832939.

William, Oban or Glasgow. Once I even had to cope with a derailment in the Glasgow area which delayed all northbound traffic and that really did mess up my shift.

You can tell which trains are where by the reporting number that is allocated to each train. The first number in the series is the most important, as this tells you the type of train that you are dealing with; for instance 1 is

an express passenger train which must be given priority. Then there are company freight trains which are not so important and have to give way to Speedlink freight. 0 is a light engine and has the lowest priority.

CREWE TRAFFIC CONTROL 1986

Crewe has always been well known as a very busy junction and it is also the changing point for locos for the Holyhead trains. You have to control train movements thorough the station area on a busy Saturday, starting at 09.30 and finishing at 14.30.

As you would expect, trains run early or late to mess you up, some trains pass through non-stop, others terminate, including most local services, and you have to control movements on four lines coming in either side.

It is not unusual to have two or three trains timed to arrive at the same time, and this demands a lot of quick thinking when your platforms get used up very quickly. You often find yourself without anywhere to put the incoming train, which loses you lots of points.

You also have freight trains coming through, and these have an annoying habit of blocking the line just when you want to get a passenger train, that's already late, out of the station as fast as possible.

With this simulation you very rarely get more than one minute without some sort of train movement. My highest mark on this one is 91 per cent. I haven't man-

aged to get any higher yet and it seems to get more interesting and frustrating each time I try it.

Before we finish there are some complaints and some improvements I would like to see made:

- Bath Green Park. On the higher levels, a locomotive sometimes gets derailed in the shed, which seems an unnecessarily artificial way of introducing a new element of panic!

- Kings Cross. I'd like to have a crack at longer shift. If a train is delayed the program waits until you have solved that problem before sending in another train. It would be more realistic if another one came along after 15 minutes to complicate matters.

- West Highland Line. In the instructions a list of the meaning of the reporting numbers would be useful, as would the ability to hold a freight train in a loop while passing another train in the same direction through the other side of the loop.

- Crewe. Here I'd like to have the ability to hold a train on the through-roads if required. This would be especially useful when handling freight trains that have to cross most - if not all - of the tracks.

However, apart from these minor points, I can only give SIAM the highest praise for a series of simulations that have given me a great deal of pleasure.

Finally, how about a simulation based on the Southern Region? East Croydon station, about 1984, with the Gatwick Express and the diesels at Oxted? ■

SPECTRUM ON LINE.

The humble Spectrum does well in the railway stakes. Greenup Software in Carlisle has produced a full range of driver simulations, traffic controls and depot control games.

All are priced at under £10 and represent tremendous value for money although it must be said that the Spectrum's 'blocky' displays don't exactly make for stunning views from the cab in the driver simulations. The main constraint on the Spectrum is its memory, but these programs show what can be done in a limited space with some elegant programming.

The rail traffic control programs allow you to take charge of all movements in your chosen scenario over a given period of time. Rail Rovers in East Anglia, Scotland and North America allows you to try and cover all the track in a given area by using the timetables. Timetable games, an Inter-City 125 card-



game, and Locospotter programs let you take a hand at everything on the railway.

The driver simulations will be the programs that initially attract the casual train buff, with the chance of moving a train along hallowed tracks.

But it is here that the Spectrum is really stretched beyond its limit. It cannot provide a realistic display of the

countryside moving by and is limited to a few details. However, the gameplay and the skills you have to learn first, more than make up for it.

• Rail Traffic Control Simulations (£9.95) Available for: Exeter, Kings Cross, Rugby, Birmingham, Crewe, Doncaster, Leeds, Reading

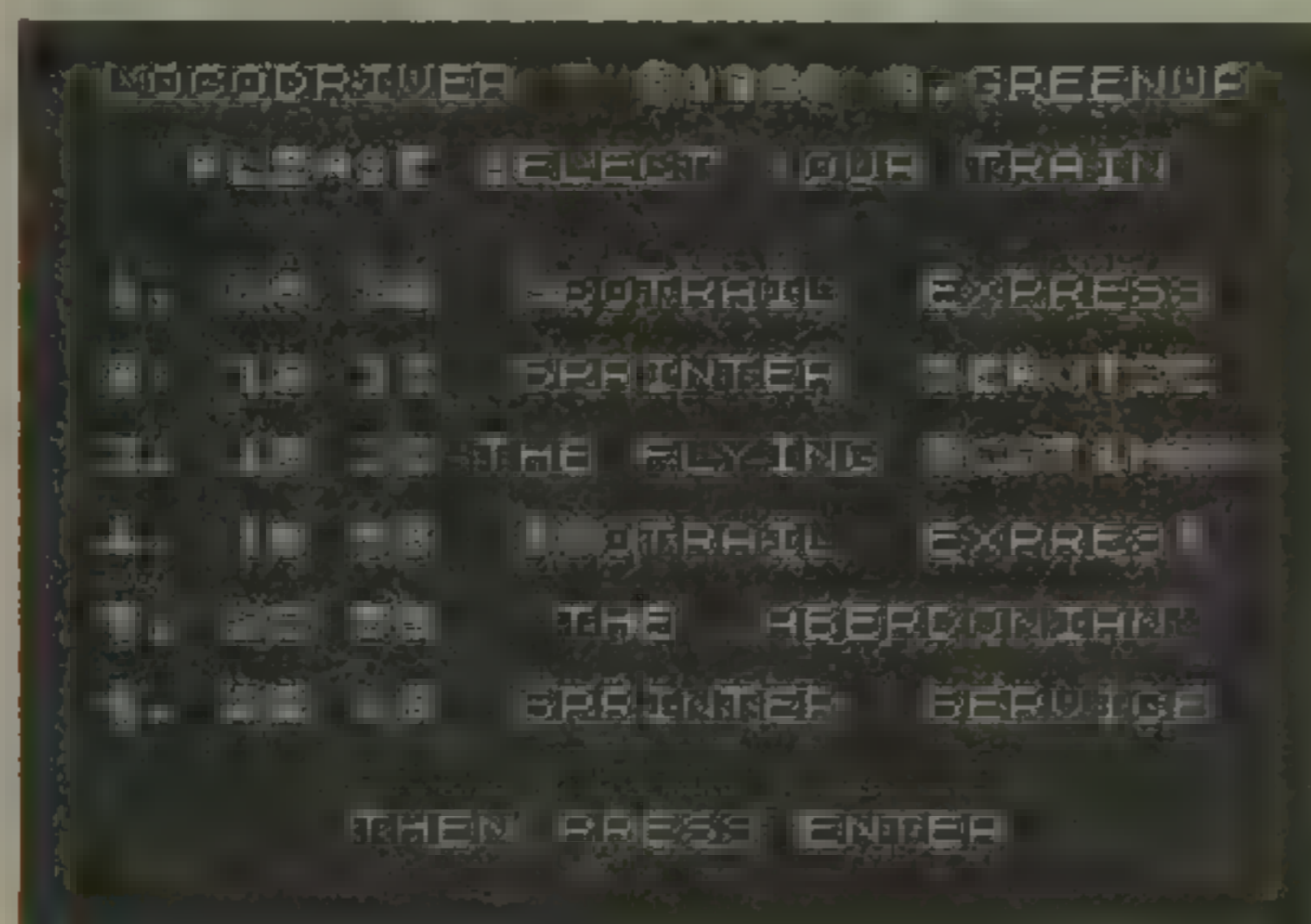
• Sheds (£8.50) available: Finsbury Park, Old Oak Common

• Miscellaneous: Trackbasher (£8.50), Anglia Rover (£8.50), Freedom of Scotland (£7.50), Amtrak Rail Pass (£7.50), 1960s LocoSpotter (£5.95)

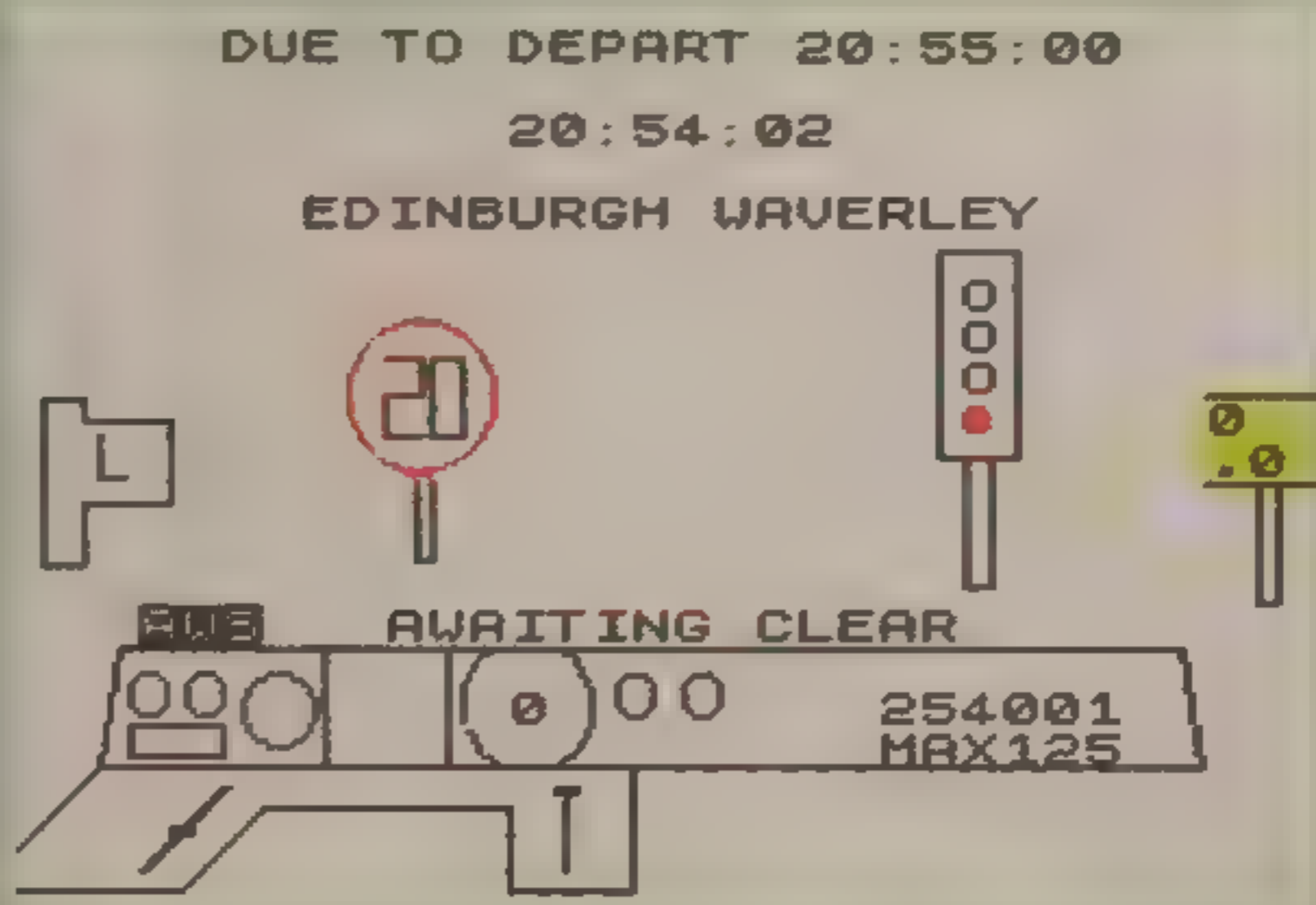
• Driver Simulations (£5.95 unless otherwise marked). Leeds-Settle-Carlisle (£7.50), Kings Cross-Edinburgh, Liverpool St-Norwich, Euston-Glasgow, Paddington-Cardiff, Paddington-Exeter, Edinburgh-Dundee, Waterloo-Bournemouth, Settle Carlisle, Glasgow-Dundee, St Pancras-Leicester, Charing Cross-Ashford

Greenup Software is on 0228 23557.

Evening Star and Southern Belle are also available for the Spectrum (See CPC panel above).



• Choose your engine for the run ahead.



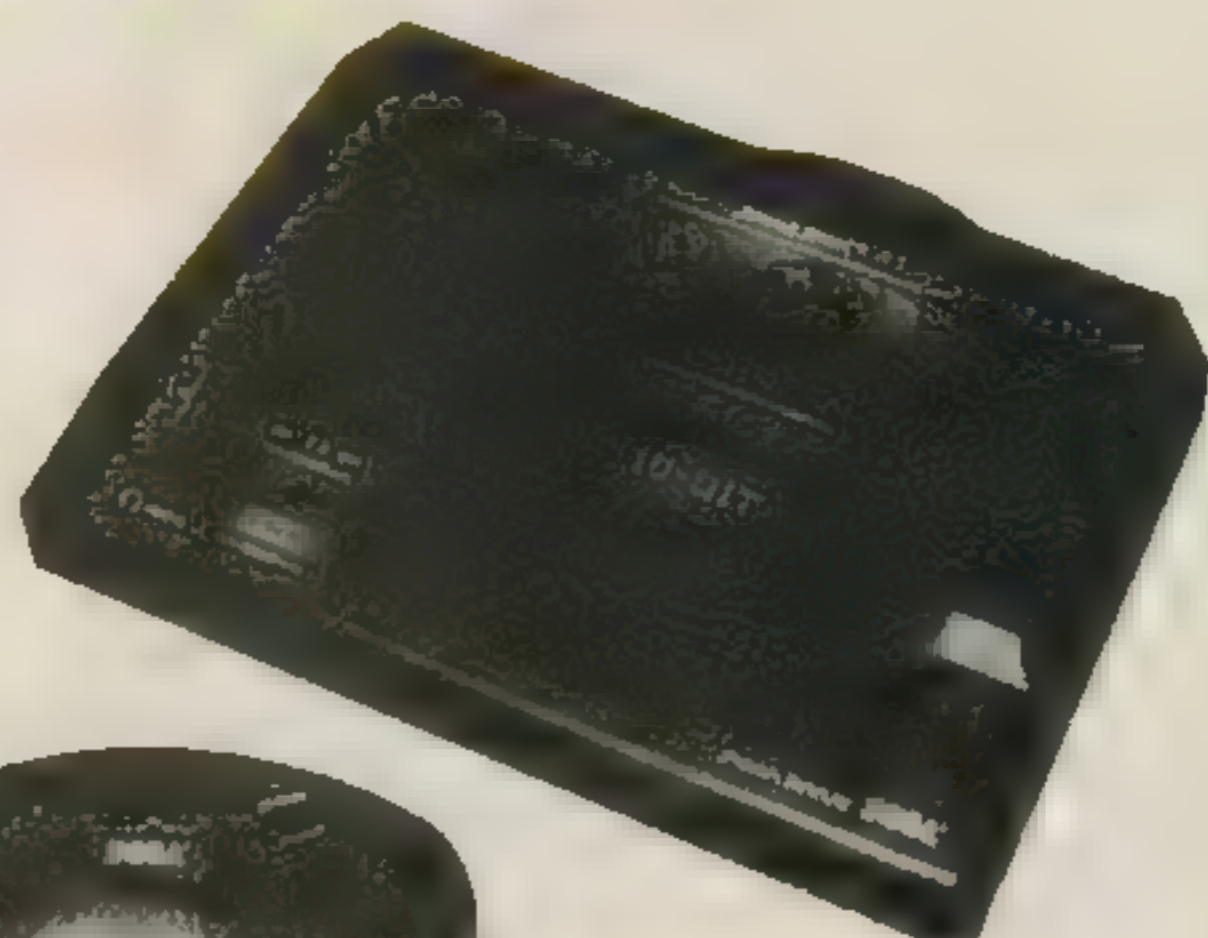
• The view from the cab in all its Speccy glory.

Solid Gold Marketing

IS PROUD TO PRESENT SEGA MEGADRIVE

£99.95

+ £5.00 P&P



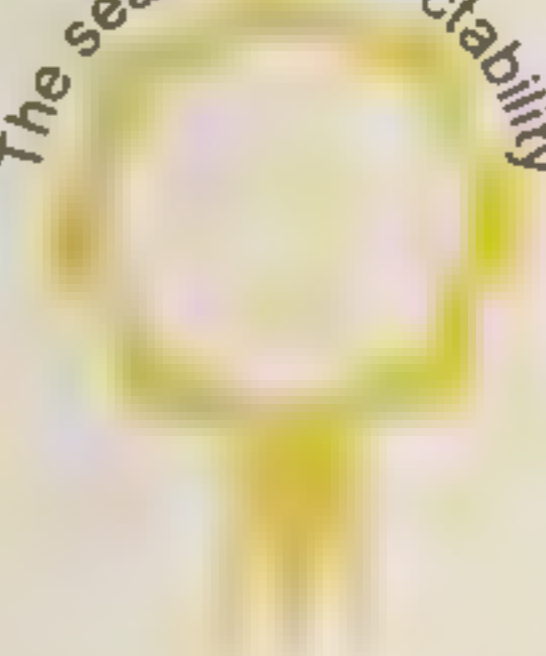
FREE
GAME

DELIVERY WITHIN 28 DAYS



the only **PROFESSIONAL**
home play joystick with a full
replacement

The seal of respectability



You'll find this new design, revolutionary joystick will give you maximum results in game play. It is comfortable, easy to use and is guaranteed arcade quality.

The Starcursor Joystick is pre-tested and incorporates all the design features and durability of its coin operated cousins - making it unquestionably the finest of its type.

The Starcursor Joystick is the closest thing to having your own arcade game in your home.

GUARANTEE

£29.95

+ £2.00 p&p

To order send cheque or postal order made payable to:
SOLID GOLD MARKETING
(Please write name and address on reverse).

**Unit 6,
Lomond Trade
Centre,
Lomond Industrial Estate,
Alexandria,
Dumbartonshire,
Scotland, G83 0TL.
Tel: 0389 55973**

Please allow 28 days for delivery.
We also accept Access & Visa
Trade enquiries welcome

CIRCUIT CITY



When you buy a computer it has a power supply that is designed and tailored to its requirements. There's no hard and fast rule as to the needs of a computer and its peripherals, so different manufacturers choose different ways to power their machines.

Computers such as the PC, ST and Acorn A3000 have their power supplies on board, the Amiga, C64 and Spectrum get theirs from a separate unit and Amstrad CPCs and PCWs have their power unit in the monitor casing.

Common reasons for needing ■ replace a power supply are:

- The original unit failed. If this is the case, have the computer checked by a competent person to make sure that a faulty micro wasn't the initial cause of the power supply failure.
- The machine was upgraded and more power hungry parts/peripherals added.
- The machine was bought cheap/end of line/second hand and incomplete.
- An otherwise compatible machine brought was from another country where the power supply is different. (ie the US where the supply is 110/120v)

For instance if you have a machine with a separate power supply, replacement is generally as easy as finding ■ suitable power supply, casing it and replacing the old one. If the power supply ■ in the case or the monitor, you have the constraints of size to deal with too. Your replacement must fit where the old one came from and must be ventilated sufficiently, as must any power supply.

If your machine is still within its guarantee period, don't attempt to replace the power supply. Have the work done as part of the warranty. ■ you replace anything or open anything up you will be in breach of your guarantee.

OPEN UP

Computers run at low voltages; 12 and 5 volts are fairly common, and a computer prefers its volts to be DC rather than AC.

As the three pins in the wall flow with 240 volts AC, the power supply of your micro has a couple of jobs ■ do. First it must take the nasty 240 volts and reduce it to ■ more manageable 12 or 5 volts. After this transformation, the AC (alternating current) must be tweaked to turn it into DC (direct current). Turning AC into DC is known as rectifying, and, as well as the rectifier, the computer normally has a circuit to protect it from the fluctuations that can sometimes occur in mains power.

TAKE CARE

This project involves fiddling with the mains power supply. Mains power can and does kill. Don't let it be you.

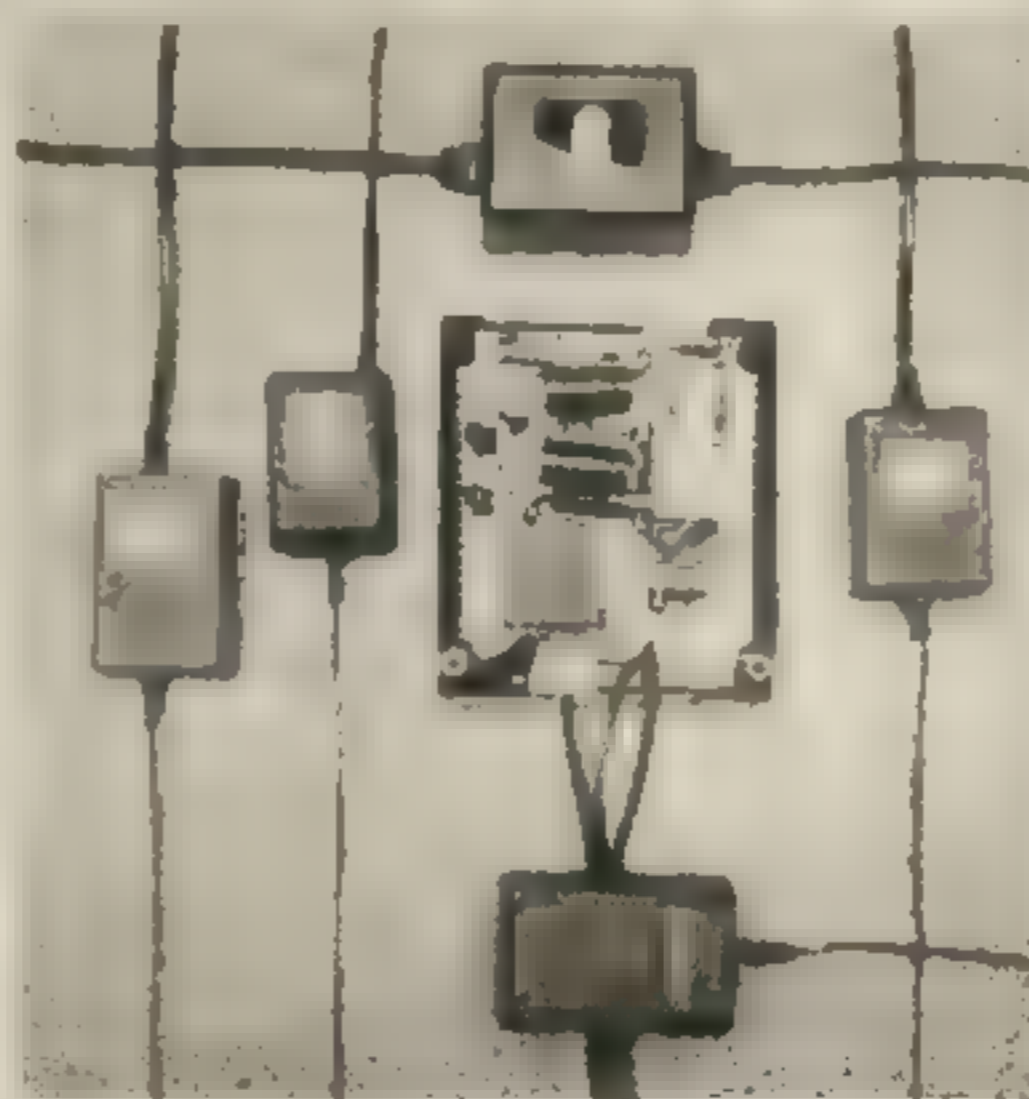
If you are replacing with a larger or more powerful power supply, take into account ventilation and the proximity of parts that may be damaged by heat. Be prepared to fit a cooling fan if necessary.

Don't consider replacing a power supply unless you know its rating

A bundle of extra peripherals may put a strain on your computer's already hardworking power supply. Keith Pomfret shows you what you can do to avoid it curling up its toes amid a cloud of acrid smoke...

In order to add or replace a power supply, you need to know what the original supply was rated at. The parameters that you need to know are as follows:

• **What amperage the original was rated as.** Current is measured in amps and in order to assure suitability, the new supply should be capable of providing at least as much current as the original. ■ the original was rated at 1 amp, it would be OK to use a supply rated at 1 amp or above, but nothing below 1 amp would ■ acceptable. Unless you are adding power hungry peripherals,



• Power supplies galore: make sure you choose the right one.

it is a good idea to stay as close to the original current rating as possible. If you are adding a known drive, board or peripheral and you know its current rating then you should take this into account when changing the power supply.

• **What voltage is required.** A power supply may be required to provide different voltages such as ■ and 12. Make sure that the replacement supply you intend to use has the right voltages. If in doubt double check.

• **Check the cooling arrangements for the original.** Transformers get warm and if you're adding a larger one or a cooling fan, then more attention to efficient convection may be required. If you are fitting a non-original power supply to a machine internally, you have the added complication of placing a potentially hotter lump next to delicate electronics.

WE WANT INFORMATION

The first place to look for information about the power supply is in the manual. If you're lucky there will be a perfectly lucid section explaining the power, voltage and current. If you're very lucky there will be a pin-out diagram or schematic, explaining which bits have how much of what running through them.

If there's no manual, or the manual conforms to the international standard that dictates computer manuals must tell you nothing in the longest technical words available, you'll have to try stronger medicine. A phone call to the manufacturer/distributor/user group etc can

often pay dividends. Every company has some troglodyte sitting in a corner whose love in life ■ to chat ■ great length about technical things. The only problem with this is that many large companies protect these useful sources of information behind walls of "He's in a meeting" telephone operators.

If all else fails try to find another machine of the same sort, and if its owner isn't aware of the required information then use a meter to check voltages etc. This is an 'if all else fails' remedy and must be saved until last. It isn't necessarily accurate and, unless you're at home with an AVO meter and a competent electrical DIY hobbyist, you should avoid it like you'd avoid a Sinclair C5.

UP TO THE ELBOWS

Once you know the parameters of the power supply you need you can buy one. A good electrical supplier such as Tandy may have the parts that you require. If it's unusual, there is the Maplin catalogue. Total cheap-skates could hover around the jumble at boot sales, computer and radio rallies, or in the racks at the back of that shop in every town that sells those wonderful 1950s radio valves.

Assuming that you find the power supply of your machine's dreams, you can go about the business of replacing it. At simplest, it will be a two minute job with a screwdriver. At worst it could be hours of a fiddle, with hot solder and delicate wires.

If there is anything at all that you aren't confident with, leave the job to an expert. A way of deciding whether the job is within your capabilities, ■ to see if you can explain it to a non-technical person in such a way that they would be competent to attempt it. If you can't, then it's time to curl up with a couple of manuals and techie books.

If you have sufficient comprehension of the project to impart the details to others verbally, you stand ■ good chance of succeeding. The project involves mains electricity, so a modicum of personal care is in order too, not just in the job itself but in its result, as a badly wired impliment could bite the user at any time.

Finally, take your time, test and check everything and take care. ■

SOURCES

Maplin
Catalogue from W ■ Smith or phone 0702 554161

Tandy
A branch in most major towns or phone 0922 710000

Any local electronics shop
(where you can get good advice as well.)

Computer/radio jumbles and fairs but be careful what you buy, unless you know what you're looking for.

TECH TIPS



Does your PC keep backing up? Is your Amiga less than friendly? Would your ST try the patience of a saint? Write to Keith Pooners Tech Tips and we'll soon see you right. Send your sorry stories to Tech Tips, Beauford Place, 30 Monmouth Street, Bath BA1 2BW.

TIP! MIDI music

I read somewhere that MIDI interfaces would only work if they were opto-coupled. Being the sort who likes to make my own things I researched all of the connections and I've made a hard-wired MIDI interface that works through the serial port of my PC AT (yes folks, real IBM) and works perfectly with proprietary MIDI software.

The point that I am making is that I had no need to opto-couple anything and it all works perfectly. I enclose the circuit diagram...

Neil Adams, Bracknell

...And I've screwed the diagram up and consigned it to the bin. The point of opto-coupling MIDI interfaces isn't anything to do with necessity, it's to do with safety. Your interface will not protect the internals of your computer from power surges and/or problems within the MIDI network. The purpose of the opto-isolator in a MIDI circuit is to stop problems occurring in one machine causing damage to another - like yours, for instance!

Risking the £1,000 plus value of your AT to the unpredictability of networking is crazy at the least and if it were someone else's PC it would be nothing short of criminal.

It's a pity that you've taken this route. The circuit diagram that you provided could have been simply adapted

using a couple of transistors, an opto-coupler, and a pair of matched resistors.

It looks like you have expansion box possibilities too. May I suggest that you go back to the drawing board, give it a dose of thinking about and come back with a safer and more versatile MIDI interface. You obviously have the ability. Why spoil the ship for a ha'porth of tar?

HELP! MIDI identities

I have been collecting MIDI instruments since the early 1980s and have a collection of 23 keyboards, guitars, modules, etc. The eventual plan is to have a working museum of computer controlled music.

I recently bought an Amiga B2000 to use as a controller for a 'live' demonstration area and I'm pleased with the software that I've bought to use as a real time sequencer (a Steinberg).

I want to be able to demonstrate the individual manufacturer IDs embedded in the MIDI code but although there is plenty of information on how it works, I have been unable to find the hex code that identifies the following manufacturers: Yamaha, Roland, Korg, Oberheim and Moog.

Noel Bragg, Walsall

The MIDI System Exclusive codes for the manufacturers that you listed are: 43,41,42,10,4. All of these are hexadecimal numbers. The use of the System

Exclusives allows large amounts of machine specific sequencer and voice data to be included in a MIDI network where the products of more than one manufacturer are used.

When you get your museum up and going be sure to let Express know so that we can send down the team to give it the once over.

Help! Amiga family

I was going to buy an Atari ST or a Commodore Amiga and had almost settled on the ST because of its faster speed, until an Amiga lover started to explain that his computer had dedicated chips and that they could more than make up for the slightly slower computer. He mentioned Agnus, Denise, Paula and Gary. Please tell me what these do and what is this DMA that the Amiga is so good at.

Don't give us a lecture on how brilliant the Amiga is. I am beginning to realise that on my own but I could do with a simple explanation about the chip set. Trevor Warren, Newport

• Fat Agnus is the heart of the dedicated chip set and contains the Blitter (Block Image Transfer). This clever little sod can shift lumps of code around at the rate of 16-bits in around 270 nano seconds. It can shift lumps of colour around in fine order and is also pretty whizzy with line drawings. The famous graphics

copper can be found in Agnus too.

• Denise is the controller that keeps all of the images on the screen in check. It handles the 4,096 colours, sprites and bit plane data. It also looks after the on-screen pointer and mouse controller.

• Paula is to sound what Denise is to pictures. As well as looking after all the lovely samples etc, it contains a DA converter and controls the whole show in glorious spatial stereo.

• Gary is a complex gate array and the little brother of the chip set, and keeps a wary eye on I/O, interfacing, ports and passes data to all peripherals.

HELP! Serious stuff

I've taken out wave after wave of hostile pixels, banged the trident on the ground to summon the magic, won the World Cup, flown planes, driven cars and generally worn out half a dozen joysticks.

But it seems a pity that this is all I have to show for the £600 plus that I've spent on buying my Amiga and then upgrading it to double drive and one megabyte of memory.

My wallet itches on my trousers again and this time I want to spend it on a printer and some serious software to take advantage of the abilities of this fine computer. I'd also like to get into animation and MIDI eventually, but for now I need just a program to write letters and estimates, and one to produce advertising flysheets.

Your ideas please!

Nick Hardman, Boston, Lincs

First, if you're going to keep customer details on a computer, you may need to register under the Data Protection Act. Once you've sorted this out, you can trek off to buy your software.

For your letters and estimates you need a word processor. My personal favourite is Protext but there are several that fit the bill. They vary in cost and features but a call to any of the firms listed below should answer your questions:

Protext V5, Arnor, 0733 68909, £149; Transcript, HB Marketing, 0753 686000, £39.95; WordPerfect, Sentinel, 0932 231164, £230; Scribble, HB Marketing, 0753 686000, £49.95; Prowrite, HB Marketing, 0753 686000, £139.95; and Pen Pal, Data Liberation, 0983 405600, £129.95

HELP! CodeMasters CD disk problems

I won a CodeMasters CD games pack and using the family MIDI system was able to load and run the programs on my eight-bit wonder. For my birthday, I received a portable CD player and for some reason or the other it won't work. It plays musical right but won't load the games CD. Isn't the disk because it still works from the MIDI system.

My dad has bought an Opus PC and I want to use the CD player to connect it and use some of the CD-ROM disks from school. What sort of lead do I use?

Martin Hailey, Uxbridge

When the CD games pack was designed, it wasn't realised that some

CD players take short-cuts in the way that they process sound. Instead of having two separate channels for stereo, some CD players have only one channel and swap between left and right channels so quickly that the human ear can't detect the change.

In the analogue human ear, this is perceived as stereo. In the more perceptive digital computer, however, this is read as a fragmented, senseless mishmash of rapidly swapping from one signal to another.

Which, I hope, explains why some CD players will handle the games pack and some won't. Unfortunately here, so many modifications that you can make to your portable CD player that

will persuade it to run your games pack so you'll have to stick with the MIDI system.

I'm afraid that the prognosis isn't good for your home-made CD-ROM. While the platter and laser scanning mechanisms of a CD player and a CD-ROM are similar, the controls are different. I'm afraid that the elegant, but expensive answer is to buy a CD-ROM player with a headphone and/or audio signal output. This could cost you upwards of £500 but you'd have a quality CD player that would do both jobs. Maybe now's the time to dig the parental sleeve in time for Christmas. NEC do a particularly nice little beast that resembles a portable CD player.

To produce good ad flyers you'll need some sort of DTP (desktop publishing) package. The choice is as follows: *City Desk*, Precision 081-330 7166, £150; *Shakespeare*, Clouthall, 0604 231211, £99; *Publisher's Choice*, HB Marketing, 0753 686000, £99.95; *Pagesetter 2*, HB Marketing, 0753 686000, £59.95; *Professional Page*, HB Marketing, 0753 686000, £199.95.

The choice is yours. If I had to take on board the same tasks as you I would probably opt for *Protext* and *Page Setter 2* - £250 worth of good value. Remember though, that the quality of your output is solely dependent on the printer that you use.

A daisy wheel printer is out, so it's got to be a dot-matrix, inkjet or laser for the jobs that you wish to do. Don't buy a printer without seeing examples of the work it can produce, particularly the type of work that you will need it for. If you are using it for advertising, this work will be the first impression that people get of your company, and this could make or break your business. So spend what you can afford but remember that the printer is an important investment and any penny pinching is a false economy.

■ HELP! Infected

You spend far too much time answering the queries and questions of people who only use their computers for games and entertainment. You should ditch these lame ducks who can't or won't read the documentation that comes with their micro. There are readers who require your services to answer sensible questions about proper computers.

If one of your tame lame ducks has a problem with his Spectrum and can't solve it, the worst possible scenario is that he cannot play a game. If I have a problem, it may cost my firm money. So it is your moral duty to answer my questions and not theirs.

My company has several PC computers with hard disks. As an economy we swapped software with another company in our group and this software has infected our machines with some sort of virus. The firm who supplied our sister company with the programs has refused to help and our own computer supplier says that we must call in a consultant (Dr Solomon) to sort the problem out.

I have no intention of paying thousands of pounds to some consultancy when you exist to do the same job. You must reply within 7 days.

Brian Murray, Address withheld to save him embarrassment.

And the enclosed envelope didn't even have a stamp on it!

Not content with alienating a good proportion of our readers with his offensive comments, this man admits to stealing software by copying it, has the affrontery to complain because the company from which he stole it won't help - and then expects *Express* to sort out his

problems. It fair takes your breath away.

I don't think that anyone deserves a virus but, Mr Murray, you come damn close. I suggest that you put your hand in your pocket and pay the necessary readies to the nice Dr Solomon. Then, while he's disinfecting your system, take the time to ponder on the wisdom of stealing software.

■ HELP! More MIDI

My sister and I learned the pianoforte the traditional way, with a spinsterly travelling teacher whose opinion of electricity was that it was a pretty poor substitute for the gas mantle.

In this environment we both attained Grade Six but felt that we were missing the electric revolution in music. We are both in our twenties and have taken an interest in computers to the extent of purchasing an Atari 1040 ST. I have quite taken to programming, and Ellen my sister has managed some rather clever pictures and documents.

At the rear of the 1040 there are three five pin DIN connectors of the sort found at the rear of stereo equipment.

They are MIDI ports according to the documentation. Our local computer shop provided a MIDI sequencing program and we obtained a Yamaha keyboard. I managed to get the sequencer to emulate a

multiple-track tape recorder but we would like to learn more about it.

Please could you recommend some suitable books for two music literate MIDI illiterates?

Paul and Ellen Stanton, Wisbech, Cambs

A good read and an ideal textbook for beginners is *MIDI Basics*. This simple to follow 60-page A4 paperback is worth its weight in golden oldies and can be ordered as ISBN 0-7119-0952-0.

Other interesting titles are *MIDI for Musicians* (120 pages ISBN 0-7119-0822-2) and *Synthesiser Basics* (160 pages ISBN 0-7119-1022-7)

■ HELP! QL connections

I bought a Sinclair QL at a computer boot sale because a neighbour has one and said that it's a brilliant computer. Unfortunately, he works in the Middle East and may be some time returning with his fountain of knowledge.

One of my son's schoolfriends claims that the QL has the same insides as an ST or Amiga. Is this true? However, my first problem is that I have the machine but no manuals. So I don't know what connects to what, or how, or even if I need a monitor or whether a TV will do.

It would be good to have it up and running before my neighbour returns. (One up for the little woman against the male expert.) Help, if you please.

Susan Alexander (Ms), Welwyn Garden City

The QL shares the same family of central processor as the Amiga and ST, but that's as far as it goes. In simple terms, if you put the same engine in a saloon, limousine, van and sports car, you would be using the same motive power but for a number of quite different vehicles.

The QL uses the Motorola 68008 processor which is the version of the 68 series with an eight-bit data bus. The basic Amiga, ST and Apple Macintosh use its big brother the 68000. This is essentially the same chip but with a 16-bit data bus instead of eight. The 68 series has 32-bit internals, but only the top of the range chips such as the 68030 have the full 32-bit wide data bus.

To the casual computer user, all of the above is technogabage and not of a great deal of interest or use. To the programmer it's a different matter. Processors within the same family have similar architecture, so while the rest of the computer's architecture may be different, the machine language is essentially the same. This allows a competent programmer to 'port' programs from one machine to another.

To help you connect your QL to the outside world, here are the connections you will find on the back. You can use a monitor or a TV, but a monitor will give you a better picture.

From left to right looking at the rear of the QL:

- 1 Network (for connection to the QL network)
- 2 Network (as above)
- 3 Power (QL power supply)
- 4 RGB (connection to a colour RGB - red/green/blue - or mono monitor)
- 5 UHF (direct connection to the aerial socket of a TV)
- 6 SER1 (RS232C serial port)
- 7 SER2 (as above)
- 8 CTL1 (Joystick 1)
- 9 CTL2 (Joystick 2)
- 10 Blanked socket for ROM/EPROM software.

If you decide to use your QL with a TV set, you'll need to tune one of your spare channel buttons to the frequency the QL sends to the TV. This is approximately Channel 36. When you've tuned the TV in to the QL connected everything together and switched on, you should see the QL copyright screen. This looks something like this:

F1 Monitor

F2 TV

© 1983 Sinclair Research Ltd.

Now that you have a working QL, you'll be able to send nicely formatted letters to *Express* using *Quill*, the bundled QL word processor - so throw away the old Remington Typewriter. A word of warning however. Like everything else designed by Uncle Clive, the QL doesn't have standard anything and to connect a printer to your QL you'll need a serial printer. That or an interface to make your QL and parallel printer talk to each other.

For all things QL, contact EEC Ltd which not only supports the QL but still sells the wondrous beastie. At the last count there were about 385 brand new QLs left in stock.



• The much admired and late lamented QL - although EEC still have a few hundred left.

36p

inc VAT

KYC DISKS

3 1/2" DISKS inc LABELS

These disks are 100% guaranteed free and fully guaranteed with a 2 year replacement and S.A.E. and we will send you a free disk to try. Limited quantities only. We're sure you will order more in the future.

VHS E180s

VHS video tapes, high quality made under license from JVC (Victor Company of Japan) with full money back guarantee. No quibbles

£1.65

POSSO BOXES

Holds 150 3 1/2" disks in attractive black

£15.95

AMIGA A500 Flight of Fantasy Bat Pack for only

£340.00

or Bat Pack plus external drive plus upgrade and meg demo

£469.00

KYC DISKS

51 Barmouth Road, Wandsworth
London SW18 2DT
phone: 081 870 0469/0860 763576

All prices inc VAT.
Please call 081 870 0469
Send Cheque or Postal
Order to:
Open 7 days a week

CONSOLE * QUEST

Tel : (0903 63786)

Office hours : 10am-1pm 2-9pm Mon-Fri

CONSOLE KINGS - RULE THE GAMES WORLD WHILST STAYING AT HOME

We, at Console Quest, would like to share our enjoyment of the very latest consoles with you. Our prices are pretty hot, how about a MEGADRIE or PC ENGINE for £155 for instance.

We supply the games and machines for the GAMEBOY, PC ENGINE, LYNX, SEGA, MEGADRIE & NEO-GEO. When placing this advertisement, our stocks included the following :-

GAMEBOY	PC ENGINE	MEGADRIE	IMPORTED NEO GEO
RED ALIMER	POWERDRIFT	THUNDERFORCE 3	BASEBALL
BATMAN	PSYCHO CHASER	COLUMNS	GOLF
SUPER MARIO	BARUMBA	PHANT STAR 2	MAGIANLORD
SPACE WARRIOR	ARMED & DANGEROUS	1943	VIETNAM '75
QUARTH	SUPER SAMURAI	GHOSTBUSTERS	More expected
+27 more	+50 more	+25 more	

We supply machines, joypads/sticks, SEGA 8 Bit converters, 2 player leads - ALL at reasonable prices.

We have the ATARI LYNX with a FREE game and mains lead adaptor. The other games in are : CHIPS CHALLENGE, GATES OF ZENDOCON, BLUE LIGHTNING & ELECTROCOP.

At Console Quest, we also have a game EXCHANGE system for PC ENGINE, MEGADRIE AND GAMEBOY owners. Please ring for full details.

We are here to help you obtain the maximum pleasure from your machine. At Console Quest, we play them too, you know!

CONSOLE QUEST, 1 ASHACRE MEWS, OFFINGTON,
WORTHING,
W.SUSSEX BN13 2DE.



VISA

PD & SHAREWARE who do you get yours from?



There are many PD libraries around but do they offer you....

- ★ Huge collection, thousands of programs on over 3000 disks
- ★ Same day service - 1st Class post - GUARANTEED
- ★ Knowledgeable staff on hand (no 'phone after six and ask for Fred!)
- ★ Three years experience collecting and distributing PD & Shareware to satisfied customers all over the world.
- ★ FREE 30 page catalogue, S.A.E (28p stamp) and state MAKE of computer CLEARLY and we'll rush one to you by return.

AMIGA

Currently over 800 disks in our catalogue, including Fred Fish, APDC, AMICUS, Panorama etc. Our own SOF collection is no good other libraries stock them now and of course we are exclusive distributors of the fabulous UGA disks. All are auto-boot, menu driven and so very easy to use, probably the best collection available! We also run an Amiga Club, ask for details.

ATARI ST

We currently stock over 800 disks full of PD/Shareware for these machines, containing every imaginable type of program! Choose from ALL the Public Domain, not just "a selection". If you are new to ST'ing why not join "Clubville", our popular user group, £6.50 gets you newsletters, offers, special prices on goods, 5% Off blanks/PD etc.

IBM PC

(and compatibles)

Thousands of the most popular Public Domain and Shareware programs in our current catalogue, all available on either 3.5" or 5.25" format, if ordering (opposite) state which. Whatever type of program you may require, we've probably got it.

MEGA PACK - £19.50 (£14.50)

5 PD disks + 5 blank disks
plus a Library case

(Selection of current popular titles)

INTRO DISK - £1.50

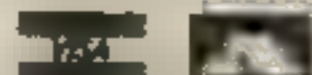
(Atari or Amiga only)

VIRUS KILLER DISK - £1.50

(state machine clearly)

(price in brackets for 5.25" disks, else preferred)

24 Hour orderline on

0705-266509

SOFTVILLE

Unit 5, Stratfield Park,
Electra Avenue, Watlingtonville,
Hants. PO7 7XN

DISKS DISKS DISKS DISKS DISKS SPECIAL OFFERS LIMITED PERIOD ONLY

GENUINE 100% CERTIFIED SONY DISKS

QUANTITY	10	25	50	100
3 1/2" DS/DD 135tpi	45p	44p	43p	41p

3 1/2" Coloured DS/HD 2mb SPECIAL OFFER 80p each
(minimum quantity 10 disks)

3 1/2" DS/DD 135tpi COLOURED DISKS 45p each
(minimum quantity 10 disks)

BANX BOXES

Lockable stackable 3 1/2" storage boxes holds over 70 disks
£9.50 each. £8.00 each for two or more boxes

SPECIAL UNREPEATABLE LIMITED OFFER

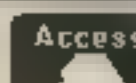
5 1/4" grey library case holds 10 disks - 60p each

All the above disks come with labels V.A.T included. Please add £2.50 postage & packaging £10.00 next day delivery (UK only). To take advantage of the above special offers call our HOTLINE now on 0784 451811 DON'T DELAY, OFFER ONLY AVAILABLE WHILE STOCKS LAST. When ordering by phone please quote NCE/MV or post your order with cheque/PO to:

MediaVALUE,
NORTHUMBERLAND
HOUSE, DEPT NCE/MV,
DRAKE AVE, STAINES,
MIDDLESEX TW18 2AP.
TEL NO 0784 466744 FAX NO 0784 450845 E&O.E

WE OFFER A NO QUIBBLE
REPLACEMENT OR MONEY
BACK GUARANTEE

VISA





No one doubts the intrinsic power of today's home computers. Compared to the machines of only a few years ago they offer more megahertz, megabytes and megaFLOPS than anyone thought likely or necessary. But has this power made the programmers lazy?

When you have 16 or 32-bits of processor at your disposal it's all too easy to produce a good enough program without stretching the envelope.

On the other hand, could hardware limitations be stalling programmers, stopping them producing their dreamed-of supergame?

Is there more to be squeezed out of the hardware of these machines or are they already at their full potential? To find out *Express* gathered together a quartet of experts - Ken Coulmarin, Jason Holborn, Mike Hardaker and Neil Jackson - and asked the vital question: Are today's machines running at full power? ▶

Acorn Archimedes

First launched: 1987



Once upon a time, not so long ago, Acorn unveiled 'the most powerful personal computer in the world' – it even claimed it would give more power to your elbow! Nearly four years on and the machine is still going strong in no less than four guises now, the A3000, the A400 series, the Unix-based range and the brand new, top end, A540. The ARM 3 has appeared and both MemC and VidC have seen upgrades.

So, the hardware is doing well enough, what about the software? Are the programmers making use of this world-beating technology? To address this question, I would like to split the rather general term 'software' into some rather easier to manage chunks.

In the world of business software, some really rather impressive steps have been made. Spreadsheets are now bigger and faster than ever before, *Pipedream* and *Schema* to name but two. The range of functions available and the sheer speed of recalculations can make these very valuable tools.

With desktop publishing, companies such as Beebug and Computer Concepts have produced DTP packages to rival the best available on the Macintosh. A lot of the credit for this must go to Acorn itself for producing such a high specification font management system. Full WYSIWYG outline fonts must be one of Acorn's best achievements. However the lowly word processor hasn't kept up with this trend. Perhaps the rather basic needs of a 'type and print' system have been neglected – I still write all my articles using *View* running under the 6502 Tube emulator!

The range of educational software that is currently available is certainly an improvement over the rather rehashed BBC programs of a year or so ago. The Archie's sound and graphics capabilities should make the machine a real part of the classroom. Companies like 4Mation (*Jigsaw*, *Poster*) and Sherston (*Connections*, *Numbers*) are now producing some very effective educational packages.

Then there's the rather harder to define 'utility' software including comms packages, of which *ArcComm* and *ArcTerm 7* are very impressive examples, and emulators. Acorn's own PC emulator is OK, 65Host is pretty good and the *Speculator* (when it appears) is positively

amazing! Most of what is available is good or getting better. The release of RISCOS has given everybody a standard to work towards which most people seem to be adhering to.

Of course it didn't take long for the more artistic software houses to write 'the ultimate art package'.

They still lack that certain something to put them in the league of programs on other micros

Unfortunately I still don't think any of them have come up with anything worthy of this title.

Clares gets the prize for the first with *Artisan*, but even in its current incarnations, *ProArtisan* and *Artisan II*, it suffers from rather too many quirks and 'creeping features' and hasn't really got enough attention to detail. Nevertheless, *ProArtisan* is one of the better packages available.

Rivaling it are Minerva's *Atelier* and Tap Consortium's *ArCol*. Again, both of these have some

very good features, notably the colour menu in *Atelier* and the distort function in *ArCol*. But they still lack that certain something to put them in the league of *CyberPaint* and *DPaint 3* on other micros.

On the other side of the coin, applications such as 4Mation's *Poster* and Ace's *Euclid* series are really showing what the Archimedes is capable of.

Another source of software is, of course, public domain. Here, the standard is generally very high, with programs ranging from disk formatters to ray tracers such as *QRT*.

Unfortunately the Archimedes is rather sadly lacking on the games front, after a promising start with *Zarch* (OK, not much of a game, but still one damn impressive piece of programming) the standard of games has remained pretty mediocre. There have been some very good games written, but these have been rather few and far between. *Pacmania*, *Rotor*, *Jigsaw*, *Fireball II*, *PipeMania*, *Manchester United* and the Magnetic Scrolls adventures immediately spring to mind. More recently, the 4th Dimension has produced some impressive looking games, *Apocalypse* and *Nevryon* being about the best, but as with the art packages mentioned above, they don't seem to have that final polish and shine that most 16 bit games have these days. Perhaps the next generation of Archie games, such as *Wonderland*, will have more to offer.

So what are programmers doing with all this power? Well, as far as I can tell, the most talented Archimedes programmers seem to spend all day every day writing demos! Put it this way, how many ball bouncing, star swirling, text scrolling, mandelbrotting, music playing demonstrations have you seen in the last six months?

Personally, I gave up collecting them a while ago as I couldn't afford the expense in blank disks! Why don't these people calm down for a moment or two and knock together the ultimate game? Surely, you could fly a ship through those stars or shoot at some of those spinning balls.

Unfortunately, the reason is a rather practical one and it applies to all branches of software writing, not just games. That is, in a word, money. Or, to put it in less blunt terms, 'market satisfaction' – believe it or not, not everyone is in this just for the cash!

It is very hard to justify spending a year (or whatever) writing a piece of software on the Archimedes and have it sell two or three thousand copies, when over the same amount of time one could write the same program on an ST, Amiga, Mac or PC and sell ten times that amount. In general, what software is written is of good quality (with one or two exceptions) and using the capabilities and power of the Archimedes, there just isn't enough of it yet!

What will the future hold?

The area which really stands out as needing a lot more attention is games.

Despite the Arc's super-fast RISC processor which renders dedicated chips such as the Amiga's irrelevant, programmers still have not managed to produce a single shoot-'em-up to come close to the likes of *Xenon II* on the other machines.

There is no hardware reason for this; the Archie offers superior graphics and, more importantly, a chip which can shift the graphics data about at a phenomenal speed – just look at the real time video capabilities of the new Arc. The blame must be laid fair and square at the programmers' door. To be blunt, they are just not good enough.

Most cut their teeth on the BBC micro, and it appears that the jump from 6502 to ARM assembler is not easily made. If the Archimedes games houses could persuade some of the Amiga and ST programmers, such as the Bullfrog team or the Bitmap Brothers, to work on Arc software then we might really see some games which would blow Amiga owners socks off!

Commodore Amiga

First launched: 1985

Is the Amiga being pushed to its full capabilities? Many seem to think not – take a quick glance through the *Express* letters pages and you're sure to find letters from disgruntled users complaining about the quality of some products. Could it be that developers have yet to harness the power of the Amiga?

You could argue that much of what has already been achieved with the Amiga has surpassed the expectations of the original developers. After all, the Amiga was originally designed as a state of the art games console – it was only in the later stages of development that its obvious potential as a desktop micro was realised.

However, despite the intentions of the original developers, the fact remains that the Amiga is capable of far more than just playing games. When judging a machine, it is often best to ignore what the machine manufacturer sees as a machine's limits, and judge instead the machine's potential as viewed by third party developers.

If there's one thing the Amiga does best, it's playing games. But are the games we have today nothing more than a taster of things to come? After all, it took programmers three years to fully harness the power of the Amiga's predecessor, the CBM – surely the same should apply to the Amiga?

In the days of the 64, games programming was still a relatively new profession, and experienced games programmers were few and far between. In most cases, it took several years for the skills of programmers to mature – it was not until then that they were able to exploit this knowledge.

With the latest generation of 16- and 32-bit machines, programmers have brought across much of what they have learned from the 8-bit machines, allowing them to learn the technicalities of these new machines far quicker. After all, although the hardware itself is far more complex, the principles behind hardware level programming remain very much the same.

This has allowed programmers to exploit the power of the Amiga far faster. If the Amiga had been launched way back in 1981, then it is almost certain that programmers would have taken far longer to achieve the results that we see today.

In fact, many programmers are starting to feel held back by the Amiga. For one, the Amiga processor just isn't fast enough, but by far the most common complaint is the lack of memory. Graphics and sound samples soon swallow up RAM, often leaving the programmer with very little room for the actual gameplay itself (*Shadow of the Beast* is a fine example of this). Many would like to see at least a megabyte of chip RAM for graphics and sound, with a further megabyte of fast RAM for programs.

One area that isn't being exploited enough is that



of virtual devices. The Amiga hardware allows hard disks and floppy drives to be used just like RAM disks, allowing game data (graphics, sound and so on) to be pulled in without interrupting gameplay. This way, programmers could overcome memory constraints. So far, only the Sales Curve's *Ninja Warriors* has used this system. If more games programmers were to use it, the size of complexity of Amiga games could be increased substantially.

They are to be gorgeous and unique. But don't ever be cryptic or otherwise unfathomable. Make it unforgettably great." Who can ever forget those immortal words? When R J Mical designed Intuition, he insured that it was so flexible that it could easily be tailored to look and perform precisely how a developer wanted.

But if Intuition is so great, why do we still have to put up with developers slagging it off? Generally speaking, it seems to me that developers just aren't bothering to put in the effort to construct a decent user interface. These developers then turn around and complain that Intuition looks unprofessional.

If these programmers are not prepared to put in the required effort, then they have only themselves to blame when their applications look unprofessional. OK, Intuition requires a whole lot of work to achieve decent results, but don't slag it off to hide your own laziness.

If you want an example of what Intuition is really capable of, just check out programs such as *Pen Pal*, *DigiPaint 3* and (in particular) Gold Disk's *Advantage* spreadsheet.

It seems to me that the quality of Amiga applications software isn't a problem at all; in fact, much of what is available can match just about anything available on other machine. What really lets some Amiga applications down is the quality of its implementation and the lack of proper testing – how many times have you found a bug after just a couple of hours of playing with a new package?

There's so much the Amiga has to offer the applications programmer, but much of it is being wasted – for one, the Amiga's multi-tasking capabilities haven't even started to be used to its full. A-Rexx (which is built

into OS version 2) is a step in the right direction, but there's still a long way to go.

The Amiga was designed to be open-ended, but surely no one could have imagined the power and diversity of add-ons now available to Amiga owners? With such devices as '030, '040 and even Transputer cards now available, complete with 32-bit RAM and ultra-fast maths co-processors, I think it's safe to say that hardware manufacturers are making the most of the Amiga. If you've got the money, you could speed a basic 7.16MHz Amiga up to a whacking 50MHz – that's over seven times faster than the machine's original design speed!

These manufacturers are starting to do things with the Amiga that the original designers never thought

The quality of Amiga applications software isn't a problem at all

possible – quite recently, Commodore engineers were amazed when KCS were able to build a complete PC emulator on a card which fitted into the RAM expansion slot on the 500. With such devices as NewTek's Video Toaster and the fabled Mandala system due for release, it makes you wonder how much further Amiga hardware design can go.

It's always been true that developers know more about the insides of a computer than the manufacturer itself, and this certainly seems to be the case with the Amiga. Developers are now producing products that push the Amiga further than Commodore or even the original Los Gatos development team ever thought was possible.

Many seem to think that the Amiga's gone as far as it can, but the developers are a cunning and resourceful lot. They may appear to have pushed the machine to its limits, but who's to say that those limits can't be extended?

Hitting the limits

The miraculous things which programmers and third party hardware suppliers achieve with the Amiga cannot fail to impress, but there is a limit on much of their work, and that limit is what makes the Amiga unique in the first place – the custom chips.

The chips which handle the Amiga's graphics and sound are still stuck at the same speed as they were when the machine was launched, even in the new Amiga 3000 series. To get still more out of the machines Commodore needs to look at upgrading those chips.

PC compatibles

First launched: 1981

In the PC's early days, the machine's hardware tended to develop apace with the software's capabilities. As PCs moved up from being 16K machines to having a 'massive' 64K of RAM as standard, applications programmers exploited the new-found freedom to write bigger (or less tightly-coded) programs. Hard disks released developers from having to write programs which would fit into 360K's worth of floppy; colour monitors introduced loads more possibilities. Microcomputer programmers were used to CP/M – it took time for them to find the limits of a DOS machine at all restrictive.

As late as 1986 there were few applications which could really push the 8088 and 8086-based PC's designed-in 640K RAM limit. Lotus 1-2-3 with a really meaty spreadsheet loaded up was a bit of a squeeze, but Lotus, Intel and Microsoft got together to form their Expanded Memory Specification (LIM EMS) and everything was hunky dory again. OK, so EMS is a bit of a bodge and you can only put data objects in it rather than programs, but that's what users wanted – 1-2-3 fitted fine, it was the spreadsheets which were getting too big.

Since then, the hardware potential has increased many times over. 32-bit 80386 and 486 microprocessors can access gigabytes-worth of extended memory – really useful stuff which can be used for programs as well as data. They have hardware memory protection which allows multi-programming and multi-threading (a program breaking itself up into several modules which run concurrently). They're quick enough to run really big programs or multiple programs. They're backed up with very large, lightning-fast hard disks, powerful graphics displays and even new architectures – Microchannel and EISA – which allow extra processors to be used for running specialised jobs.

However, most programs still use them in exactly the same way they used the PC-XT's 8088 microprocessor in the mid-Eighties.

PC software is not what it could be, but it is not the hardware which is holding the software back. Rather, it is the software holding the software back.

The problems come from the original PC's phenomenal success. Because so many people bought PCs in the early Eighties, there was a huge potential market for PC software which applications developers sought to exploit. Because of the huge applications portfolio which developed the PC became a more attractive purchase to more people, which made even more developers... and so on. People still buy PCs for this massive portfolio of software – all of which runs under DOS.

And DOS doesn't support satchels-full of extended memory, or multi-programming or multi-threading. It doesn't support the cleverer features of EISA and



Microchannel. In most cases it's fair to say that it just supports the features found on a clone of the original PC-XT (albeit one with a beefed-up RAM allocation of 640K, a bigger hard disk and a prettier screen).

Software developers mostly don't see 'power users' as having 386-based PCs which are rich in extra functionality. They see such people as having very fast

so software developers don't write for it, so it's less attractive...

Considering how few OS/2-based PCs are actually out on the streets, it's amazing how many companies actually do write for it. Anyway, the current release – 1.2 – of OS/2 doesn't even support the 386 family, being written to the instruction set of the 1984-vintage 80286; release 2.0 will have 386-specific code but that's been due Real Soon Now for a long, long, time.

Windows 3 offers an interesting approach to combining DOS with some of the features of a more grown-up operating system. Leaving the graphical bits aside, the underlying code of Windows 3 is pretty damn clever, and actually allows programmers to create applications which are bigger than 640K. It doesn't allow for multi-threading, however, and its multi-programming is pretty primitive when you get down to it. Also, Windows 3 retains the old 8086's segmented memory model, with its messy little 64K chunks, which doesn't exactly help the multi-programming as Windows 3 itself does all its main control work using just one segment.

In a sense, of course, the hardware is responsible for the PC's software not being able to develop further. The massive installed base of 8088 and 8086-based XT-class machines (and a good many of the ATs too, to be honest) ensures that Microsoft cannot jazz up DOS to exploit the bigger and better 80386 family. Its operating system has to run on all the PCs which are out there, within reason – current releases of DOS assume a 256K machine.

The hardware standard always ends up being the lowest common denominator. And the restrictions of the 1981 design which looked pretty generous back then – 640K is ten times what the average Apple II used and that was a big machine at the time – are crippling the forward movement of PC applications.

Maybe, as Microsoft and IBM undoubtedly intend, Windows 3 will act as a stepping-stone to OS/2. If that operating system succeeds in becoming the new business standard, we will see applications which can exploit the capabilities of 486 machines. If we're stuck with DOS, our programs will continue to run faster and faster but we won't see much more functionality.

The hardware is responsible for the PC's software not being able to develop further

XTs – after all, the operating system dictates that the PC is used as such.

There are operating systems which can exploit the extra functions of the new technology, of which OS/2 is probably the most complete example. Unix does a lot, but what's the point in running Unix on a fast PC when you can get a RISC system for the same money which will run it better? However, OS/2 doesn't have the same software library as DOS, so it is less attractive to users.

Breaking the barriers

Windows 3 could finally see the end of the 640K limit which has hampered software for so long.

Genuine Windows 3 applications (as opposed to ordinary programs running in a window) have no pre-set limits when it comes to memory usage.

More exciting is the way that Windows and the high-end OS/2 operating systems appear to be growing together. At the moment

translation between the two systems is not difficult, but soon Microsoft hopes that programs written for one will run unaltered on the other. This will mean that the operating system you use will depend on your hardware setup, but the programs will be the same no matter what.

In this way operating systems will be able to be tailor made for the specific hardware they are working

on, with 486 processors, specialised buses and the rest all being put to the optimum use, without the programmer having to worry about it. A call to the operating system to, say, save a file will be identical on any system but the operating system will actually carry it out in the way which best suits the hardware.

In this way every system could be fully optimised.

THE ATARI ABC

Now, there's a PC-AT compatible that not only solves problems like other AT compatibles, it also solves the one problem that its predecessors have created ... affordability.

Silica Systems are pleased to present the new Atari ABC. The ABC is a 286 AT compatible that runs at over 5 times the performance of the IBM XT. This is achieved by combining the power and speed of a 16-bit 286 processor, with Atari Corp's development experience and engineering capabilities, which use the very latest in design technology. However, the Atari ABC's are available at 'XT prices' and many XT owners will wonder why they paid more, but got less!

The ABC is a reliable, high performance computer, built to exceptionally rigorous standards. It is well designed, to a state of the art specification, maintaining maximum expansion capability for the future. This includes up to 4Mb of RAM and 3 AT expansion slots. Plus, unusually for a PC at this price, the ABC has the ability to install two or three extra drives, with the cabling already inside the CPU.

The ABC has a host of impressive features, all built-in as standard, encouraging simple installation and ease of use. In addition, the ABC's small footprint and quiet operating, mean that you will notice it less on your desk than other PC's. Except, of course, when you begin to take advantage of its AT power.

At its remarkably low price point, the ABC is ideally suited for home, office and educational use and will take full advantage of the vast range of PC compatible software. And, with 12 months FREE on-site maintenance (8 hour response), you can rest assured that your ABC will be fully supported.

The ABC is the latest addition to a comprehensive range of both 286 (8Mhz or 12Mhz) and 386 (16Mhz and 20Mhz) PC's, from the Business Systems Division of Atari Corp. Atari's PC range offers an unsurpassed combination of reliability, compatibility and expandability, with unique features like Atari's 44Mb removable hard disk on their PC4. Return the coupon NOW for further details of the complete range of PC products from Atari's Business Systems Division.

**ABC
TURBO**

AVAILABLE: JUNE 90

To put the ABC even further ahead of the competition, we have introduced a special 'Turbo' version, which includes a super fast RLL hard disk controller to increase the data transfer rate from 150KBytes/s to 800KBytes/s, with a performance index of 4.801. Plus, to provide exceptional graphics with an outstanding colour resolution of up to 1024x768, we have included a Super VGA graphics adaptor and a 14" VGA colour monitor (which also supports 1024x768 resolution), all for an additional price of only £300. Check the ABC Turbo against the competition, at only £1299 (+VAT) with 30Mb hard disk, Super VGA colour graphics capabilities, plus 12 months on-site maintenance - it offers unbeatable value.

LOW PRICE - HIGH SPEC!

CPU + MOTHERBOARD	<ul style="list-style-type: none"> 8Mhz 80286 16-bit CPU Landmark Speed = 10.3Mhz, Norton SI Test = 9.0 Latest NEAT (New Enhanced AT) technology chip set Has user selectable bus, DMA speeds & wait states Programmable to operate at 0 or 1 wait states 640K RAM base memory (expandable) Motherboard expandable to 4Mb RAM memory Real time clock with battery back-up Full 16-bit data line capability Socket for 80287-8 numeric Co-Processor 3 16-bit AT expansion slots (max)
DISK	<ul style="list-style-type: none"> 32Mb RLL hard disk - 150KBytes/s transfer - 60ms access Fast disk controller - 800KBytes/s transfer - Turbo version 1.44Mb built-in 3 1/2" floppy disk drive Space for two 5 1/4" and two 3 1/2" drives (max)
I/O	<ul style="list-style-type: none"> Parallel port built-in (25-pin Centronics) Serial port built-in (9-pin RS-232) Mouse controller port built-in (9-pin serial)
GRAPHICS	<ul style="list-style-type: none"> Super VGA video graphics controller - 512K - Turbo vers Super VGA: 256 colours in 800x600 res - Turbo vers EGA video graphics controller built-in EGA: 16 colours available from a palette of 64 EGA: 256K of dedicated Video RAM built-in MDA, CGA and Hercules graphics controller built-in
PHYSICAL	<ul style="list-style-type: none"> Low noise operation Ergonomic small footprint (38cm x 41cm x 15cm) Keyboard - 102 key enhanced AT (12 function keys) Keyboard - has 2 position height adjusters
PLUS!	<ul style="list-style-type: none"> Fully OS/2 compatible (requires 4Mb RAM) Supports Industry Standard Networks MS-DOS 3.3 with GW BASIC 3.22 12 Months FREE on-site maintenance included

286 AT

WITH 30Mb HARD DISK & EGA MONITOR - £899

FREE! - ON-SITE MAINTENANCE

FREE! - TECHNICAL SUPPORT HOTLINE

FREE! - TEST/BURN-IN BEFORE DESPATCH

FREE! - OVERNIGHT COURIER DELIVERY

£899
WITH +VAT
**30Mb
HARD
DISK
AND
EGA
MONITOR**



**ABC
TURBO**
£1299 EXC VAT
• SVGA COLOUR MONITOR
• SVGA GRAPHICS CARD - 512K
• 30Mb HARD DISK DRIVE
• FAST DISK CONTROLLER

£899

+VAT=
£1033.85

	3 1/2" FLOPPY DRIVE NO HARD DRIVE	3 1/2" FLOPPY DRIVE + 30Mb HARD DRIVE
NO MONITOR	£599 +VAT = £694.85	£799 +VAT = £918.85
+ EGA MONO	£699 +VAT = £803.85	£899 +VAT = £1033.85
+ EGA COLOUR	£799 +VAT = £918.85	£999 +VAT = £1148.85
ABC TURBO AVAIL JUNE 90	• 14" SVGA COLOUR MONITOR • SVGA GRAPHICS ADAPTOR • FAST DISK CONTROLLER £1099 +VAT = £1263.85	£1299 +VAT = £1493.85

SILICA SYSTEMS OFFER YOU

ON-SITE MAINTENANCE (8 hour response): Available Free of Charge on all ABC's.
TECHNICAL SUPPORT HELPLINE: Team of Atari technical experts at your service.
100% QUALITY CONTROL: Every ABC is tested/burnt-in before despatch.
FREE OVERNIGHT COURIER DELIVERY: On all hardware orders shipped in the UK.
ESTABLISHED 12 YEARS: Proven track record in professional computer sales.
£13M TURNOVER (with 60 staff): Solid and reliable with maintained growth.
BUSINESS/EDUCATION/GOVERNMENT: Volume discounts available for large orders.
PRICE MATCH: We normally match competitors on a "Same product - Same price" basis.
SHOWROOMS: Demonstration and training facilities at our London & Sidcup branches.
THE FULL STOCK RANGE: All of your Atari PC requirements from one supplier.
FREE CATALOGUES: Will be mailed to you with offers and software/peripheral details.
PAYMENT: Cash/cheque/credit card/credit - we are licensed credit brokers - details on request.

Before you decide when to buy your new Atari ABC, we suggest you think very carefully about WHERE you buy it. Consider what it will be like a few months after buying your ABC, when you may require additional peripherals or software, or help and advice with your new purchase. And, wait the company you buy from contact you with details of new ABC products? At Silica Systems, we ensure that you will have nothing to worry about. Silica Systems is a new division of Silica Shop, the UK's leading Atari specialists. This new division has been established to provide a service to the more serious home user, as well as to business and education purchasers. Silica have been established for over 12 years, and have an annual turnover of £13 million. With our unrivalled experience and expertise, we can now claim to meet our customers requirements with an understanding which is second to none. But don't just take our word for it. Complete and return the coupon now, for our latest Free literature and begin to experience the "Silica Systems Service".

**SILICA
SYSTEMS**



MAIL ORDER: 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX Tel: 081-309 1111
Order Lines Open: Mon-Sat 9:00am-6:00pm No Late Night Opening Fax No: 081-308 0608
LONDON SHOP: 52 Tottenham Court Road, London, W1P 0BA Tel: 071-580 4000
Opening Hours: Mon-Sat 9:30am-6:00pm Late Night: Thursday until 8pm Fax No: 071-323 4737
SIDCUP SHOP: 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX Tel: 081-302 8811
Opening Hours: Mon-Sat 9:00am-5:30pm Late Night: Friday until 7pm Fax No: 081-308 0017
BUSINESS/EDUCATION: 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX Tel: 081-308 0888
Order Lines Open: Mon-Fri 9:00am-6:00pm Closed on Saturdays Fax No: 081-308 0608

To Silica Systems Ltd, Dept NCE-1090-28, 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX

PLEASE SEND INFORMATION ON ATARI PC's

Mr/Mrs/Ms: Initials: Surname:

Address:

Postcode:

Tel (Home): Tel (Work):

Company Name:

Which computer(s), if any, do you own?

Atari ST

First launched: 1985

Of all the computers that were part of the 16-bit revolution, the ST was always the most likely to reach hardware saturation. The reason for this was that it relied less on custom chips or a radically different operating system than its competitors. The guts of the machine featured some competent but unexciting design work, using systems and circuitry which were generally available at the time, or were nowhere near a quantum-leap in engineering. The sound-generating system, for example, using its archaic Yamaha YM2149 chip was perhaps the most short-sighted design decision, leaning so heavily as it did on its 8-bit roots.

On the firmware front, the ST was again handicapped at birth. In a bid to remain MS-DOS compatible and attract the business market, the Tramiel Operating System grew into a cumbersome and contorted means of controlling the hardware. Internal routines were almost entirely filing system and console-based, VT52-style, offering little to any programmer eager to push the system to its limits.

To gain desperately-needed speed from the machine, most games programmers ignored TOS and wrote directly to the hardware. Fine! Problem solved. The hardware itself was always capable of spectacular results at high speed, especially when running unfettered, without the millstone operating system to hold it back. But TOS has been re-written and modified more times than the bible, and each time hardware addresses and important system variables get moved around. To a program relying on TOS for its input and output systems, this is invisible, but it can spell instant death for any program talking directly to hardware.

The situation was worsened by the fact that Atari were never very forthcoming about new operating system details. Often the first a programmer knew of a new revision was when his software publishers phoned up to complain that his program wouldn't work on their machines (or worse still, on their customers'!).

Atari's standpoint on this issue was that programmers should always use TOS, and stick rigidly to the programming guidelines (which most programmers would give their back teeth to get an official copy of!). For spreadsheets, databases, word processing and the like this is no problem (and is actually to be encouraged), but for games, animation or any other complex, speed-hungry program where vast areas of screen memory need to be shifted around fast – forget it! It can't be done with TOS efficiently enough.

But does this mean that the ST is a spent force, or it's exhausted its potential? Not for a moment! The lack of full exploitation is partly due to the reasons above,



but it's also a result of the general trend of software houses to reduce program creation time by writing for many machines at once. Cross-development systems, running on remote computers, are used to squirt new programs into target computers via the DMA port. Nice and quick for programmers, it does mean, however, that a program will often be written to appeal to the lowest common denominator – ie, it must work on the weakest machine and won't necessarily get the best out of the most able ones.

Many coin-op conversions are made in this way, and often the end results are less efficient (and therefore less fast) than they would have been if they were tailor-made ST versions.

But the factor which has held back full exploitation of the ST more than any other is its disk drive. In the ST's earliest (and probably most widespread) 520STFM configuration, it was fitted with a single-sided disk drive, capable of holding a maximum of 400K per disk. Several years down the line, this remarkable limitation has been purged and all STs now sell with double-sided drives as standard. But the tendency is for software houses to try to maximise their profits by squeezing products onto single-sided disks, thereby ensuring that absolutely every ST owner can run them (or so they

think). This is a waste of space, as all disks have two sides! For the sake of a few extra production pennies double-sided drives are lying half-dormant, annoying owners (who have to keep swapping disks) and programmers (who have to cut programs around more to fit them in).

Until most programs are aimed at a basic 1Mb, double-sided system, rather than a 520K single, the ST will always fall short of its potential. In days of yore, virtually all 16K Spectrums became 48K ones, purely because most software was aimed at that configuration. Surely it would work in the case of the ST too?

Even in its new form, the STE, the machine has a long way to go. The addition of eight more grey-scales on the colour palette gives Amiga-like colour possibilities. 4,096 colours is all well and good, but the original STE design specification stated that 32 would be displayable at once, rather than merely 16. Hopefully, Atari will see to this in a future revision. Meanwhile, add-on 4,096 colour boards are just beginning to show themselves, enabling old machines to increase their potential too.

Other unexplored paths include the STE's analogue joystick ports, which could hold the key to accurate simulations, with realistic movement. It seems incredible that for the ST (and any other 16-bit machine) the old, 8-way, video-console joystick is still the standard. Why? We should, en-masse, be experimenting with foot-pedal systems, rotating sticks, multiple fire-buttons, steering wheels and so on. With the STE more than any other machine, this is possible, and cheaper!

While it looks on the face of it that the ST has had a chequered history, and is perpetually undergoing some upgrade or other, it does still have a future. There is a good deal of life left in the machine, a whole host of unexplored areas which programmers have yet to get to grips with. When every disk you can buy is double-sided, plays sampled music while loading, uses the blitter and 4,096 colours (at once) and allows you to input data via analogue joystick, rudder pedal and voice-operated toaster, you can believe that the end is nigh! Until then, the ST is still an infant in a world where the adults can't decide which school it should go to.

Whither the ST?

The ST must be the machine with the most rumours of future products floating around it: the console, a RISC ST, hand-held ST, a fair few have turned out to be true as well, notably the Stacy laptop and the superfast Unix-toting TT.

For all this speculation of up-market products, the ST remains solidly down to earth in its appeal: it is the cheapest 16-bit machine you can buy and it has the best range of low cost business and games software. But the one thing the ST

is not is at the cutting edge. It has yielded that ground to the Amiga, and more especially the Archimedes despite Atari's investments.

The ST ranges, on paper, very strong. There is a CD-ROM player, a dedicated laser printer and plenty of hard drives. Models are available with a professional appearance with a separate keyboard. The laptop has features unique to itself and the TT offers the power of Unix along with ST compatibility. All of

this stands up well against the Amiga, but somehow the Atari machines always seem to come off second best.

It seems that to a large extent the important thing is not the excellence of the hardware, or the quality of the software, but the perceived image of the computer.

The ST is slipping in the image stakes despite technical innovations and that is where the best is not being made of the ST's potential.

COMPUTERDIAL HERO FANTASY GAMES

SEARCH AND DESTROY



Action stations! Command your fleet as you engage the enemy in an amazingly realistic war on the high seas. You control where to aim and what missiles to fire. Track your results with this grid.
Chief Commander of the Month wins £500.

COMPUTERDIAL
BATTLESHIPS
0898 800 880

**£100
BLOOD
MONEY**

STEVE JACKSON'S
GLADIATORS
OF THE ROMAN EMPIRE

0898 800 891

WAR OF WIZARDS

A TELEPHONE GAME OF
SPELL COMBAT
by Ian Livingstone



Step onto your podium. Prepare for war. It's you against Yaztromo's school of wizards as you engage in electrifying spell combat.

Hear thunderbolts crash, fireballs erupt, monsters roar, and hellhounds snarl as you hurl them at your opponent. Will they hit their mark, or rebound back on you?

Prepare to cast your first spell now by dialling 0898 10 10 66 and let the magic begin!

DIAL 0898 10 10 66

£100 PRIZE

FIST

0898 800 878
DUNGEON FANTASY ADVENTURE



FIST II

0898 800 879
TREASURE HUNT IN CASTLE RUINS

Calls are more expensive than ordinary telephone calls and should only be made with the permission of the telephone subscriber. Calls cost 33p per min cheap, 44p per min other times (inc. VAT). Touch-Tone phones recommended. Computerdial Ltd., Guildford, Surrey GU1 4JU.

WIN!

CONSOLES, GAMES, PRINTERS, SUBSCRIPTIONS, DISKS

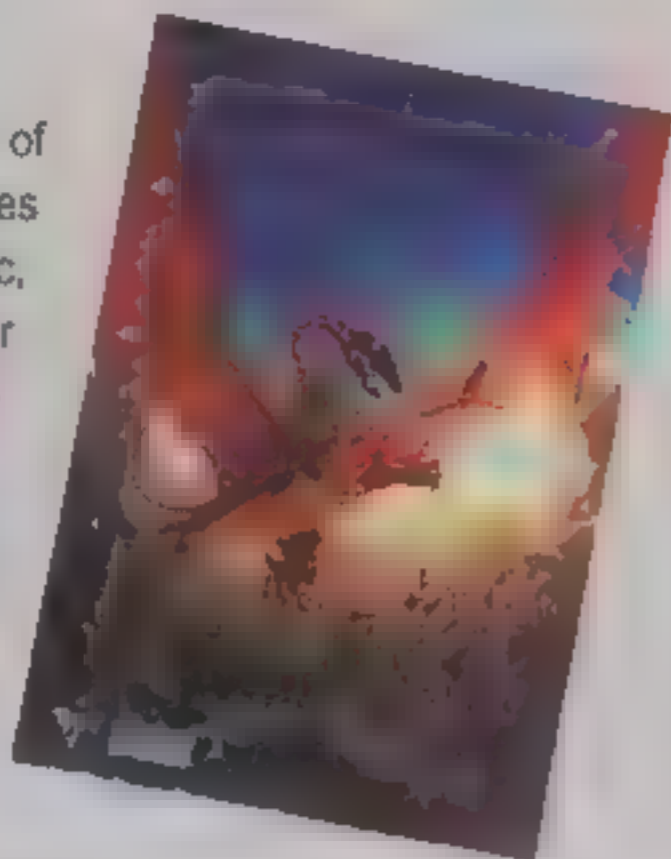
THE EXPRESS 100th BR

"Look, it's our birthday, so go and get a few prizes to cheer the readers up. What with the winter setting in and all that." That's what the editor said. So, off I went in the hope of raising a couple of quid's worth of prizes for you. As you can see it worked. In fact, with over 500 prizes to be won, I should say that it worked rather well.

What is there to win? Read on and find out. Because so many companies have been generous enough to donate (that's right, donate for no money to you) prizes, I have decided to list the prizes in alphabetical order.

Active Sales And Marketing:

Active is one of those companies that you, the public, rarely get to hear about. It masquerades behind the names Thalion, Active Consoles, and a whole lot of other companies for which it does the marketing. Well, Active has decided to brighten up bedrooms country, nay, Europe-wide, with 20 signed, framed, art-printed (that's expensive y'all) copies of the *Dragonflight* artwork. Get your walls on the line for this one.



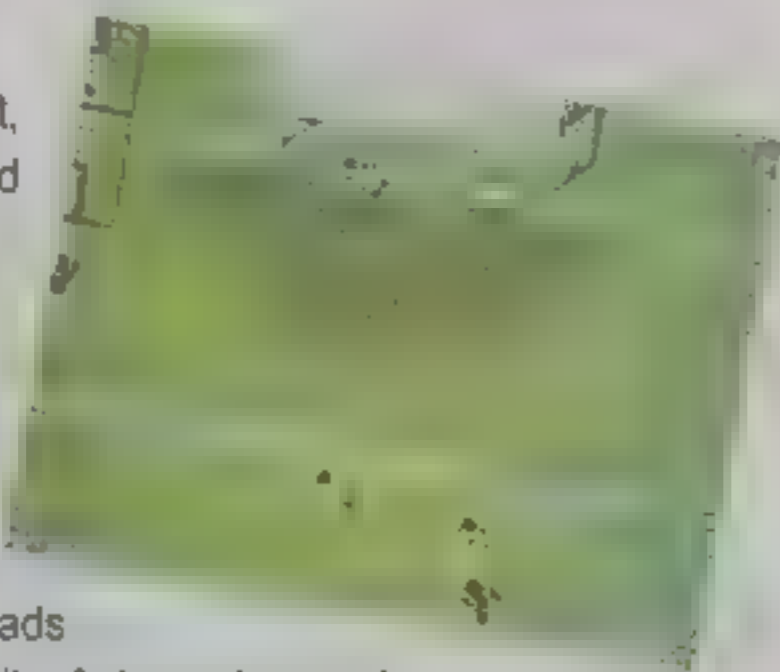
Amstrad

Here we go then, with a company you most certainly will have heard of. Good old Amstrad has seen fit let us have one of its GX4000 games consoles to give away. The console, that bears a striking resemblance to the updated *Star Trek* landing craft has more games coming out for it every month. So far you have *Burnin' Rubber*, *Batman*, *Switchblade*, *Klax*, *Fire and Forget*, *Crazy Cars 2*, *Tin Tin on the Moon*, *Tennis Cup*, *Batman 2*, *Robocop 2*, and *No Exit*.



Anco

You guessed it, *Kick Off 2* and *Player Manager*. But on top of those we also have *Turrican* and *Legend of Faergil*. Loads of copies of all of these in nearly every format you could conceive of; alright there is no Cray version, nor is there a copy for MSX owners, sorry about that. Still there are 25 copies of the footy sim to be won. The same for *Turrican*, and 10 copies of *Legend*. So get answering those questions now.



Cd's

This company has decided to leave the choice of game up to you. With £150 worth of games from its catalogue

to be won this is a wide choice indeed. Games to pick from include *Colossus Chess*. Once again all formats are covered here.

Cheetah

If there's one thing you need to play most of the games which are offered in this competition, it must be a joystick. Cheetah is prepared to offer some £500 worth of the things so you never need to touch a keyboard again while smashing your way through the alien ranks. Remember to tell us what machine you have.



Clares

Now here's an enticing set of prizes for the Archimedes user. Do you fancy winning *Interdictor*, the flight sim which really puts the RISC into the machine? No, well how about *Artisan 2* or even *Rhapsody*, two other pieces of software to cheer the neglected Archie up? Just answer the questions.



Commodore

You lucky people you! Just because you read *Express* you think that you should get the

chance to win, gratis, a Commodore PC Starter Pack or even a couple of C64 consoles do you? Well, so do Commodore and ourselves. In fact Commodore suggested the idea to us, that's how much they think of you. There are games galore on the C64 – just have a look at our sister magazine *Commodore Format* if you want the proof. As for the PC, what better start could you get?

Computer Concepts

Have you got an Archimedes? Have you got a state of the art document processor for it? No? Well get your thinking head on, correctly answer the questions and you could win *Impressions*, the all singing, all dancing processor for your Arc. It comes with all the facilities you could want, and is being constantly reviewed to see how much more the package can get from the machine.

Domark

Dominic and Mark have been so busy, what with the show and all, that they don't seem to have any games left to give away. Instead Domark has gone for the sartorial approach; yes Spike Lee wears one, Magnum wears one, even Gorbey has



been seen in one – it's the baseball hat. To be exact there are 50 of them to be won.

Electronic Arts

Now here's a company which knows how to spell generosity, gemonsisty, generoisty, generosity even already! "Badges, we got 'em, your readers can have 50 of 'em. Oh Tee-shirts, yes have 50 of those as well, and give them a chance to win a load of our games as well. Just get them to choose." That's what EA said, and you don't half have a lot to choose from. Check out *Populous*, *Powermonger*, *Chuck Yeager*, *Skate or Die*, *The Immortal* and *Projectile* among others.

Future Publishing

We at *Express* know that we are the finest organ out. However, we also know that there are some other magazines out there which are read by you people. So, Future Publishing (the big bosses) has been forced into providing three subscriptions for each of the following titles: *Amiga Format*, *ST Format*, *S*, *PC Plus*, *8000 Plus*, *Your Sinclair*, *Amstrad Action* and, of course, *New Computer Express*. That's free for a year, delivered to your door and no waiting at the newsagents.

J & M International

Cyber time is here. You might not be able to jack into the matrix yet (have a look around an interactive system old chum), but you can hit your mind with some waves. We have an MC2 superscript mind machine and six tapes to set your thoughts off into previously unknown tangents. J&M have also chucked in a box of Opus disks, as used by NASA. If you somehow fail to win, the company is also offering a special reduced price for *Express* readers. You can phone J&M (the UK's sole distributors) on 091-477 2555.



Locomotive Software

The company which launched a thousand hopeful authors with its *LocoScript* range has decided to allow one lucky reader to win a copy of



LocoScript PC. If you are one of the lucky million who own a PCW you could also win one of two copies of the full range of Locomotive's products for the machines. The two packs comprise *LocoScript 2*, *LocoFile*, *LocoSpell*, and *LocoMail*. All you have to do is get the answers right and you could be set up for the foreseeable future.

Logitech

Logitech is known for its DTP hardware and software work. So, in a fit of outrageous philanthropy the com-

S, DISKS, HATS, JOYSTICKS, AND MUCH, MUCH MORE IN BIRTHDAY COMPETITION

WIN!

pany has decided to donate the following zoomy products: *Finesse* (the all round super-smart-smashing program), a Handiscan scanner, *Imagin*, and a mouse. The



lucky reader (yes the word was reader) who wins this little lot can certainly expect to be knocking out some serious desktop published work in the very near future.

Micronet

Now 100 of you will need a modem for this but what a prize it is. We have Micronet subscriptions to give away. Normally valued at £92 each, these subs will allow you to plug into one of the largest telecommunications networks this side of the Pecos. Think of what you can access: information, games, help lines, other parts of the world. All of this comes with Micronet, and British Telecom's expertise and help.

MirrorSoft

I am not going to say C*****a! or d*de, or talk about flat pastry concoctions with anchovies and mozzarella but I think you get the picture.

There are turtle goodies to be won in some abundance. MirrorSoft in its infinite desire to free the sewers and



fight the good fight has donated five bags of TMNTurtle goodies. These include bumbags, badges, T-shirts and general half-shell bits and pieces.

MPH

TCB Tracker should make your ST make sweet music. There is no accounting for talent, so MPH has not included *Euterpe* (she's the muse of music, and lyric poetry actually. There you've learnt something now). *TCB Tracker* allows you to take your fave samples from software such as *Replay* and then play them back using the ST keyboard. It uses four-channel sound and real or step-time sequencing. Ragamuffin styles.

Page 1 Computers

Want to force your Amiga into doing what you want it to do? Would you like to create games? How about making your own applications? Then try the GFA BASIC interpreter from Page 1.

Sector 15

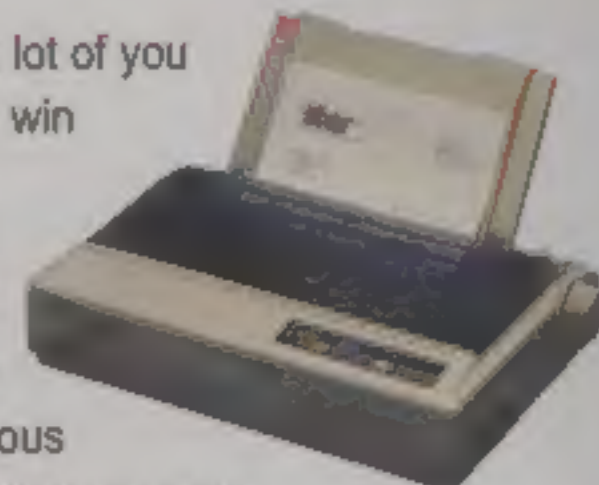
The public domain is the place to be. Just think, once upon a time, Steve Jobs and Wozniak used to be involved with PD and look what happened to them. So 50 memberships to the Sector 15 PD library looks even more like a good deal.

Software Business

If you were at CES you would have seen the Software Business stand stripped of posters and other paraphernalia by the hordes of young adults. Well SB is over the shell-shock and has donated nearly £400 worth of, you guess it, software to our readers. This includes various *Wicked* games, a *Music-X Junior*, copies of *Oops Up*, and the new shoot-'em-up *Zerix*. So if you would like some new software, get the questions right and you'll do the business.

Star Micronics

Now, I just know that a lot of you out there will want to win this one; I do. It's a colour Star LC-10. Known to its friends as the LC-10C, the printer will print gorgeous hues out for you to pep up your DTP, letters or anything which needs hard copy. It's a 9-pin and will run with any standard parallel port. Caxton would be spitting tacks at the mere thought of it.

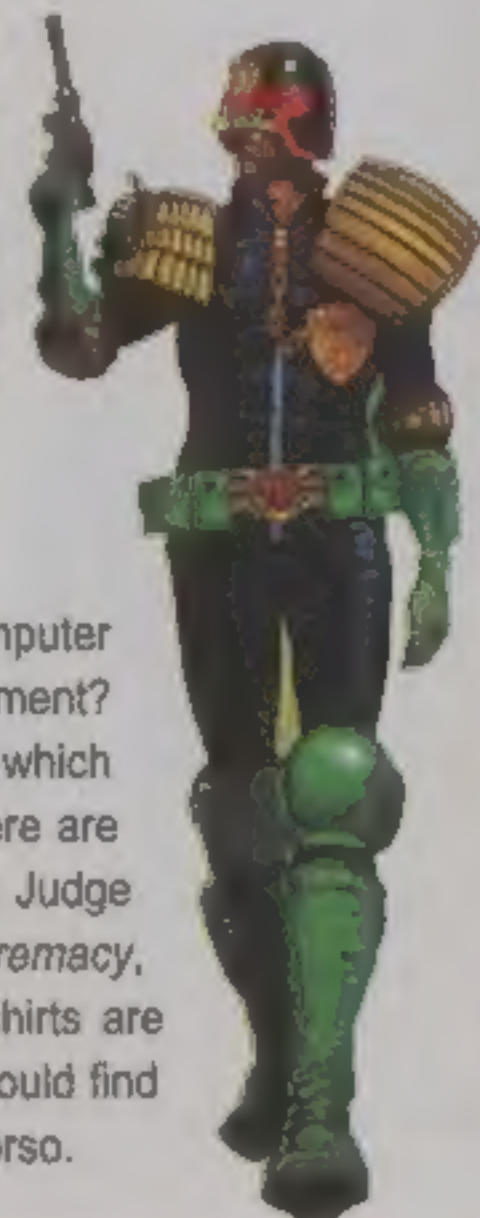


US Gold

It's big, it's popular and it's US Gold. So, it might be a huge mega-corporation but it can still find it in its heart to let our readers lay hands on some £1,250 worth of games, T-shirts and badges. The games are up to you to choose, so have a look at the US Gold adverts you will find scattered around the various Future Publishing titles, take your pick and tell us what you would like.

Virgin

What is the best dressed computer person wearing at the moment? Why it must be the T-shirts which Virgin Games is offering. There are five sets to be won, including *Judge Dredd*, *Wonderland*, *Supremacy*, *Well Ard*, and *16-Blitz*. The shirts are hipper than something you would find connecting your leg to your torso.



The £20,000 Questions

All you have to do is read these questions, consult your friends, family, in fact anyone who might be able to help you to the prize of your choice, and dreams. Remember to fill in the card on the front of *Express* and send it, post haste, so that it reaches our glorious officers no later than October 19. Pick up your pens, no cheating, you have two weeks to complete the paper.

1) What does Amiga mean?

- A) Computer
- B) Girlfriend
- C) Single called life form

2) What does Amstrad stand for?

- A) Alan Mark Sugar TRADing
- B) Alot More Shops TRADing
- C) Alan Michael Sugar TRADing

3) Who is not a Teenage Mutant Hero Turtle?

- A) Leonardo
- B) Raphael
- C) Rembrandt

4) Which company makes joysticks?

- A) Panther
- B) Gorilla
- C) Cheetah

5) Which popular music exponent was recently reported to use an Amiga?

- A) Elvis Presley
- B) Sid Vicious
- C) Betty Boo

6) Which is the correct spelling?

- A) LocoScript
- B) LOCOscript
- C) locoSCript

7) Who wrote the cyber classic *Neuromancer*?

- A) William Shakespeare
- B) William Gibson
- C) Mel Gibson

8) Which is not a recognised baud rate?

- A) 9,600
- B) 1,200
- C) 12,000,000

9) What does PD stand for?

- A) Public Domain
- B) Public Dominion
- C) Private Dancer

10) Which character would you expect to find in Virgin games' *Wonderland*?

- A) The Mad Hatter
- B) B
- C) Dean Moriarty

11) MicroProse brought out a flight sim, was it

- A) F231
- B) Baron Von Richtofen's Flighty Challenge
- C) F15

12) *Out run*, the classic driving game came from

- A) Ilford High Road
- B) US GOLD
- C) Brentwood

13) The Acorn Archimedes makes use of what technology?

- A) Iron age
- B) RISC-based
- C) Debased

14) Which of these is a programming language?

- A) BASIC
- B) LinGo
- C) Lips

15) Which company makes footy sims?

- A) Anchor
- B) Anco
- C) Anne Diamond

16) In *The Godfather*, what was found in a bed?

- A) A bedbug
- B) A secondary school head
- C) A horse's head

17) Who is the advertisement manager on *Express* (a clue, see page 10)?

- A) Meryl Streep
- B) Helen Kirkhope
- C) Dame Vera Lynn

18) Which film featured a computer prominently?

- A) *Lassie Come Home*
- B) *TRON*
- C) *The Greatest Story Ever Told*

19) How many beans make five?

- A) Bean, bean, half-bean, bean, bean, half
- B) Bean, half-bean, bean, bean, half-bean, bean
- C) Bean, bean, bean, bean, bean, bean, bean

20) Who was the first person on the moon?

- A) Louis Armstrong
- B) Neil Louis
- C) Neil Armstrong

THE FUTURE

THE NeXT MACHINE

The Apple Mac range had the friendliest front-end since Jayne Mansfield, until now. Its innovative interface underpinned its unrivalled success in the DTP and multimedia markets far more than the hardware it rested on. Whatever the application, it may have always been easier on a Mac; but Apple no longer produces the world's leading edge personal computers. The next generation has arrived.

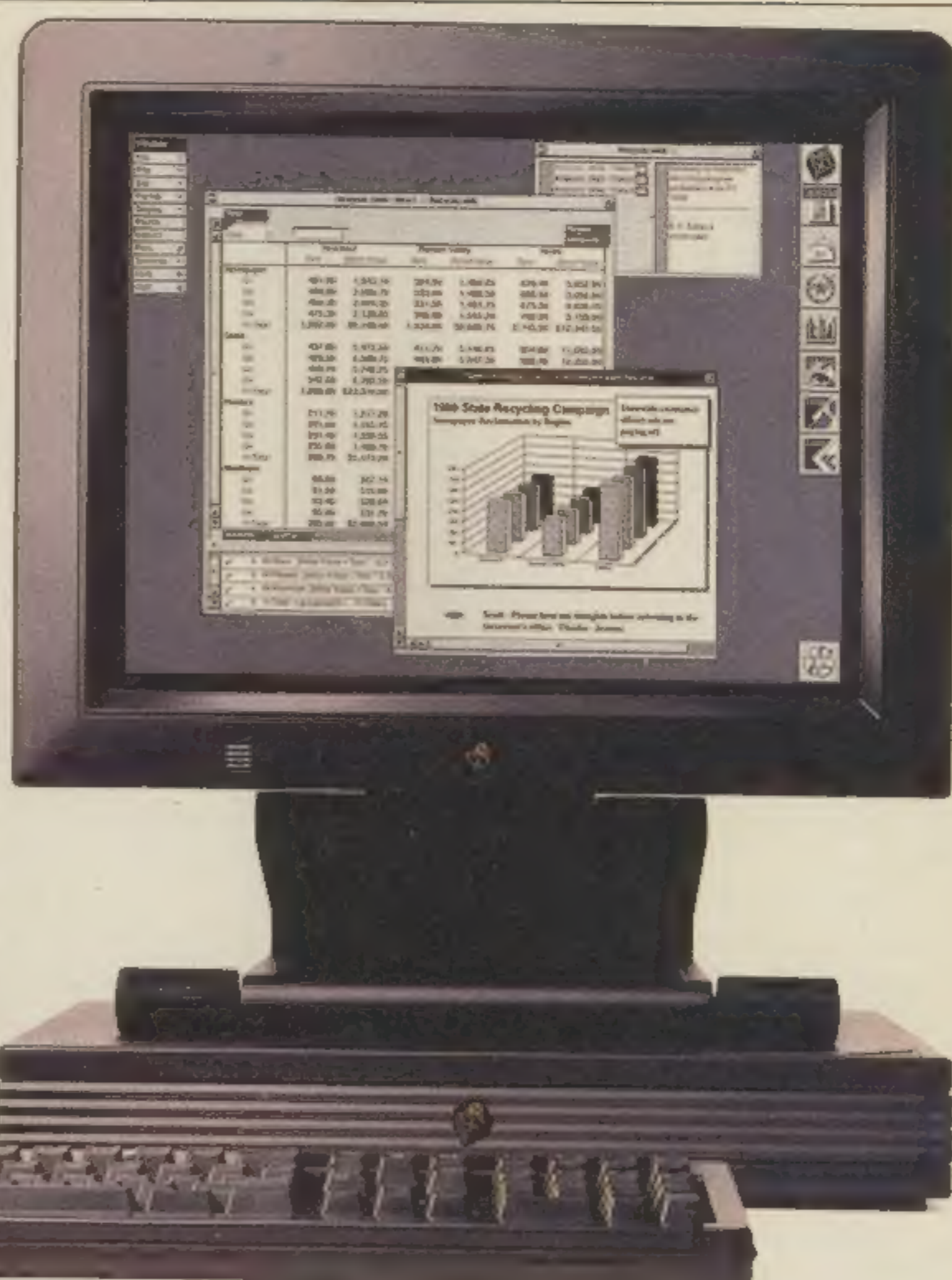
Some would put it all down to Steve Jobs, Apple's co-founder and all-round whizz-kid who departed to set up NeXT in 1985. Three years later, the matt-black beauties rolled off a robotic production line and were marketed as the world's first 'interpersonal' computers - 'partners in thought'. A brave claim maybe, but when one takes a closer look at this futuristic machine it's a pitch that has some substance. So, what are the elements of the new NeXT range that make it so exciting? Well, try these for starters:

- Motorola 68040 processors running at 25MHz and delivering 15 MIPS - that's faster than Sun's fastest RISC workstation, twice the speed of a top of the range Mac IIx and five times the speed of the average 386 PC clone.
- 8Mb of RAM, 105Mb hard disk, an MS-DOS compatible 2.88Mb floppy drive and an 1,120 x 830 pixel resolution monitor fitted as standard.
- Built-in CD quality sound processor and integrated handling of text, voice, graphics and video.
- Display PostScript - the page description language pioneered by Adobe for printing devices has for the first time been extended to control

The last words this week go to what is the last word in personal computing.

Andy Storer looks at the NeXT dream machines.

• The entry level NeXT comes in at £3,225 - the plant which produces them employs only five humans and can, it is claimed, change system firmware design in 25 minutes, instead of the more typical 3 to 4 months. Here it's running Improv, Lotus's revolutionary new spreadsheet.



WHAT'S NeXT?

screen images, so that what you see really is what you get from your laser.

- The latest Unix operating system offering full multi-tasking, running under a graphic interface that's been adopted by IBM for use in its future Unix machines.

NeXT POWER

Now this isn't some marketing exercise, but one can't fail to be impressed - there's speed, there's power, there's even colour - 32-bit colour! 24-bits for generating over 16 million colours on a display of 1 million pixels, and 8-bits for providing transparency effects. Sure, you can buy 24-bit colour cards for a Mac, but the NeXTdimension board has two built-in chips that leave it out on its own.

First, an Intel i860 RISC chip is included just to handle on-screen colour. So when you pick up a high-res colour image on screen and drag it across the display, the redraw is instantaneous.

Second, there's a C-Cube compression chip that can squeeze a 1Mb image down to 40K with no discernable difference in appearance. So storage or transfer of heavy duty video or bit-mapped images compressed in real time can be filed or shunted over a network very quickly. Video drivers allow you to run tape, TV, Laserdiscs, CDVs or whatever in their own windows as full-motion video which you can capture and paste directly into DTP documents.

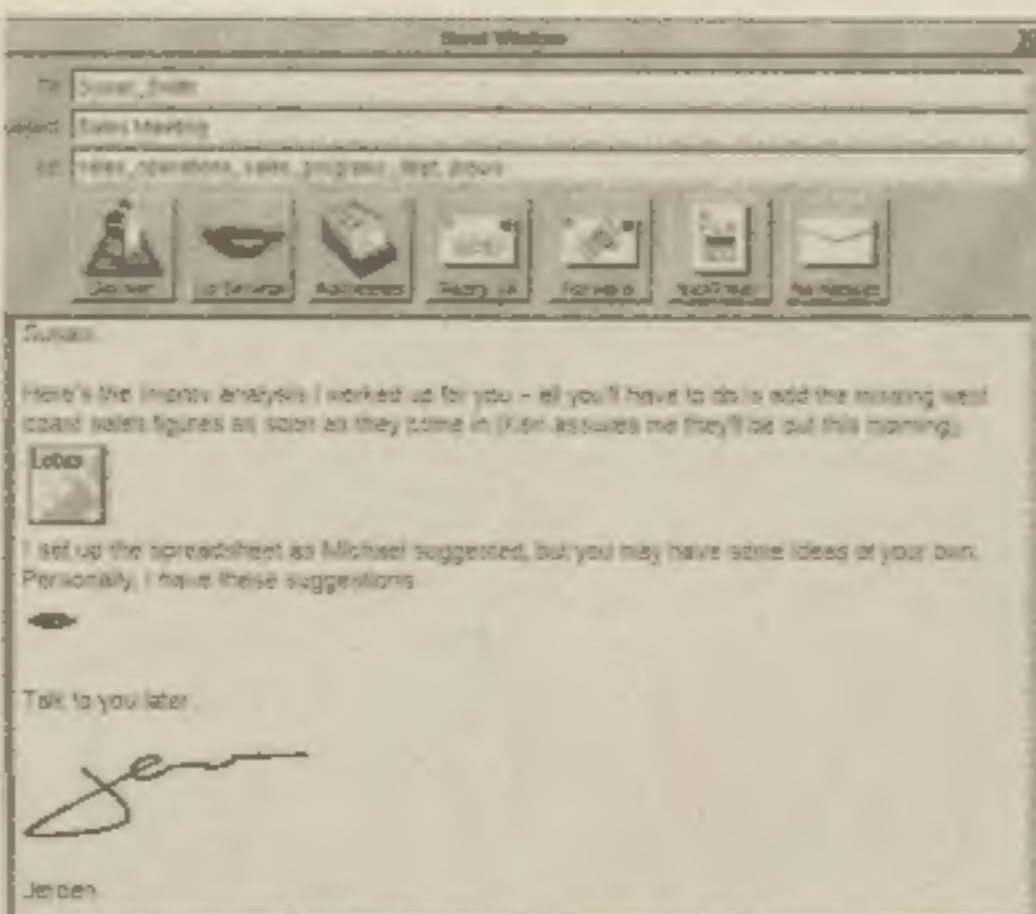
What's more, there are 400 dots per inch laser printers for £2,000, optional 250Mb erasable optical disks and 1.4 gigabyte hard disks.

If this leaves you stunned, you probably won't flinch at the addressable RAM you can have on board - 64 megabytes!

NeXT APPLICATIONS

While well-known applications like Adobe *Illustrator*, Quark *Xpress*, *WordPerfect* and *Wingz* are all available for the NeXT range, two new programs in particular stand out as living up to the hardware's spec.

Imagine's *MediaStation* is a multimedia database in which text can be stored in fields and images, and sounds and animations stored in associated buttons. Ideally configured for use over a network, *MediaStation* permits high resolution scanned images to be combined with CD-quality sound and voice annotations for desktop presentations and animations. Materials can also be linked via 'hyperlinking' functions so that browsing interactive databases can be quickly built. Both image and text files can be imported, manipulated and outputted to videotape if required.



• Clicking on the lips will play the voice clip that's been appended to this e-mail document. Clicking on the Lotus button will load the attached Improv spreadsheet.

Perhaps the program to arouse most interest though is the new spreadsheet from Lotus - *Improv*. This is radical in so far as it uses common English commands to enter and link numerical data. Lotus claims to have reinvented the spreadsheet with the 1-2-3 compatible *Improv* and indeed, in the way that formulae and functions automatically update and copy themselves when the spreadsheet is extended, this could well be true. But it's the presentational aspects of *Improv* which really set it above other spreadsheets. It's possible to view data with 27 different graphical formats and rotate the results any which-way you want.

LET'S GET INTERPERSONAL

Central to NeXT's vision of computing in the Nineties is the notion of interpersonal computing. It argues that the previous revolutions in computing - spreadsheets and desktop publishing - were created with a single desk in mind. Now, the argument holds, we are stepping towards working together on collaborative projects. As such, machine's have to be built around networking - and high-speed, transparent networking at that. Ethernet is the chosen channel of communications and through it, all NeXT machines can share applications and transfer electronic mail. On the software side we're not just talking viewdata - we're looking at scanned images, graphics, fully formatted DTP documents, video, fax and, since each monitor has a microphone built-in, speech. With built in OCR software, the NeXT mail system can receive faxes read the images directly as text for subsequent editing. ■

Express will be taking delivery of a NeXT at the end of the year so watch out for a full hands-on feature then.

RETURN THE COUPON FOR FREE COLOUR BROCHURES!

NEW! - AMIGA PACK



Commodore A500
Flight Of Fantasy

£399

INC VAT

A500 BATMAN PACK



The Commodore A500 Batman Pack must surely rank as one of the most popular computer packs ever! The pack features the Commodore Amiga 500 computer with mouse controller and TV modulator, plus four top software titles. The software includes: 'Batman The Movie' - Rld Gotham City of the cunning joker, in Ocean's top selling title based on the blockbuster Batman film; 'New Zealand Story' - high quality conversion of the leading arcade game; 'Interceptor' - Dogfight with two F-16's in this leading flight simulator; 'Deluxe Paint II' - top quality Amiga graphics package which set the standard for others to follow. Return the coupon for further details.

PACK INCLUDES:

A500 Computer & Mouse	£399.99
A520 TV Modulator	£24.99
Batman The Movie	£24.95
New Zealand Story	£24.95
Interceptor	£24.95
Deluxe Paint II	£49.95

TOTAL RRP: £549.78

Less Pack Saving: £150.78

PACK PRICE: £399.00

£399

INC VAT

AMIGA 2000



For the more serious or professional applications user, Commodore have a selection of systems based around the expandable Amiga 2000, at prices from £1295+VAT. The A2000 features a full 1Mb RAM (expandable to 9Mb), 9 system expansion slots, plus IBM compatibility with the use of PC-XT or PC-AT bridgeboards. Complete and return the coupon, putting a tick in the A2000 box, for details of A2000 computer systems.

£1295

+VAT= £1489.25

FLIGHT OF FANTASY

Flight of Fantasy is the very latest Amiga 500 pack from Commodore, featuring BRAND NEW software releases, to make this the most spectacular A500 pack ever! The pack features the Amiga 500 computer with mouse controller and TV modulator, as well as four top software titles. These include the following:

DELUXE PAINT II:

The high quality graphics program that set the standard for other Amiga art packages. Deluxe Paint II includes powerful, easy to use tools that bring out the artist in you. Create masterpieces, presentations, 3D perspectives or just doodle.

ESCAPE / ROBOT MONSTERS:

Here's something completely different - a science fiction story with comic book style graphics. Our heroes Jake and Duke are on the Planet X rescuing Humans who have been captured by the Robot Monsters and forced to create an evil Robot Army to DESTROY EARTH! Jake and Duke fight their way through hordes of evil Robots to help the Humans escape.

RAINBOW ISLANDS:

Slip on your magic shoes, practise throwing a rainbow and you're ready to go island hopping. From the Island of Doh to Monster Island, you will encounter Doh himself, stinging insects, lethal combat machines, mechanical assailants, the formidable beings of legend and folklore. Finally enter the world of darkness and its inhabitants.

F29 RETALIATOR:

The ultimate in flight simulation with a choice of two aircraft and four battle environments with dozens of different tactical missions. Aerial combat, strategic bombings, interactive ground based battles, seagoing carriers - the list of features is endless. Real time cockpit displays, including 'true radar' enhance the realistic feel of this stunning simulation.

PACK INCLUDES:

A500 Computer & Mouse	£399.99
A520 TV Modulator	£24.99
Deluxe Paint II	£49.95
Escape/Robot Monsters	£19.99
Rainbow Islands	£24.95
F29 Retaliator	£24.95

TOTAL RRP: £544.82

Less Pack Saving: £145.82

PACK PRICE: £399.00

£399

INC VAT

FOR FURTHER DETAILS OF THE AMIGA RANGE, COMPLETE THE COUPON AND RETURN IT TO SILICA SHOP
THE UK's No1 AMIGA SPECIALISTS

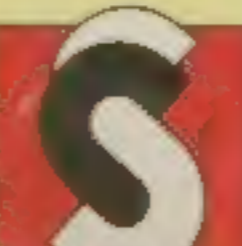
SILICA SHOP OFFER YOU

FREE OVERNIGHT COURIER DELIVERY: On all hardware orders shipped in the UK.
TECHNICAL SUPPORT HELPLINE: Team of Amiga technical experts at your service.
PRICE MATCH: We normally match competitors on a "Same product - Same price" basis.
ESTABLISHED 12 YEARS: Proven track record in professional computer sales.
£13M TURNOVER (with 60 staff): Solid and reliable with maintained growth.
BUSINESS/EDUCATION/GOVERNMENT: Volume discounts available for large orders.
SHOWROOMS: Demonstration and training facilities at our London & Sidcup branches.
THE FULL STOCK RANGE: All of your Amiga requirements from one supplier.
FREE CATALOGUES: Will be mailed to you with offers and software/peripheral details.
PAYMENT: By cash, cheque and all major credit cards.
CREDIT PAYMENT TERMS: Silica are licensed credit brokers - return coupon for details.

Before you decide when to buy your new Amiga computer, we suggest you think very carefully about WHERE you buy it. Consider what it will be like a few months after buying your Amiga, when you may require additional peripherals or software, or help and advice with your new purchase. And, will the company you buy from contact you with details of new products? At Silica Shop, we ensure that you will have nothing to worry about. Silica have been established for over 12 years, and have an annual turnover of £13 million. With our unrivalled experience and expertise, we can now claim to meet our customers requirements with an understanding which is second to none. But don't just take our word for it. Complete and return the coupon now for our latest Free literature. You will begin to experience the "Silica Shop Service".

RETURN THE COUPON NOW!
FREE BROCHURE

SILICA
SHOP



MAIL ORDER:	1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX	Tel: 081-309 1111
Order Lines Open: Mon-Sat 9.00am-6.00pm	No Late Night Opening	Fax No: 081-308 0608
LONDON SHOP:	1 Tottenham Court Road, London, W1P 0BA	Tel: 071-580 4000
Opening Hours: Mon-Sat 9.30am-6.00pm	Late Night: Thursday until 8pm	Fax No: 071-323 4737
SIDCUP SHOP:	1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX	Tel: 081-302 8811
Opening Hours: Mon-Sat 9.00am-5.30pm	Late Night: Friday until 7pm	Fax No: 081-309 0017
BUSINESS/EDUCATION:	1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX	Tel: 081-308 0888
Order Lines Open: Mon-Fri 9.00am-6.00pm	Closed on Saturdays	Fax No: 081-308 0608

To: Silica Systems Ltd, Dept NCE-1090-32, 1-4 The Mews, Hatherley Rd, Sidcup, Kent, DA14 4DX

PLEASE SEND INFORMATION ON THE AMIGA

Mr/Mrs/Ms: Initials: Surname:

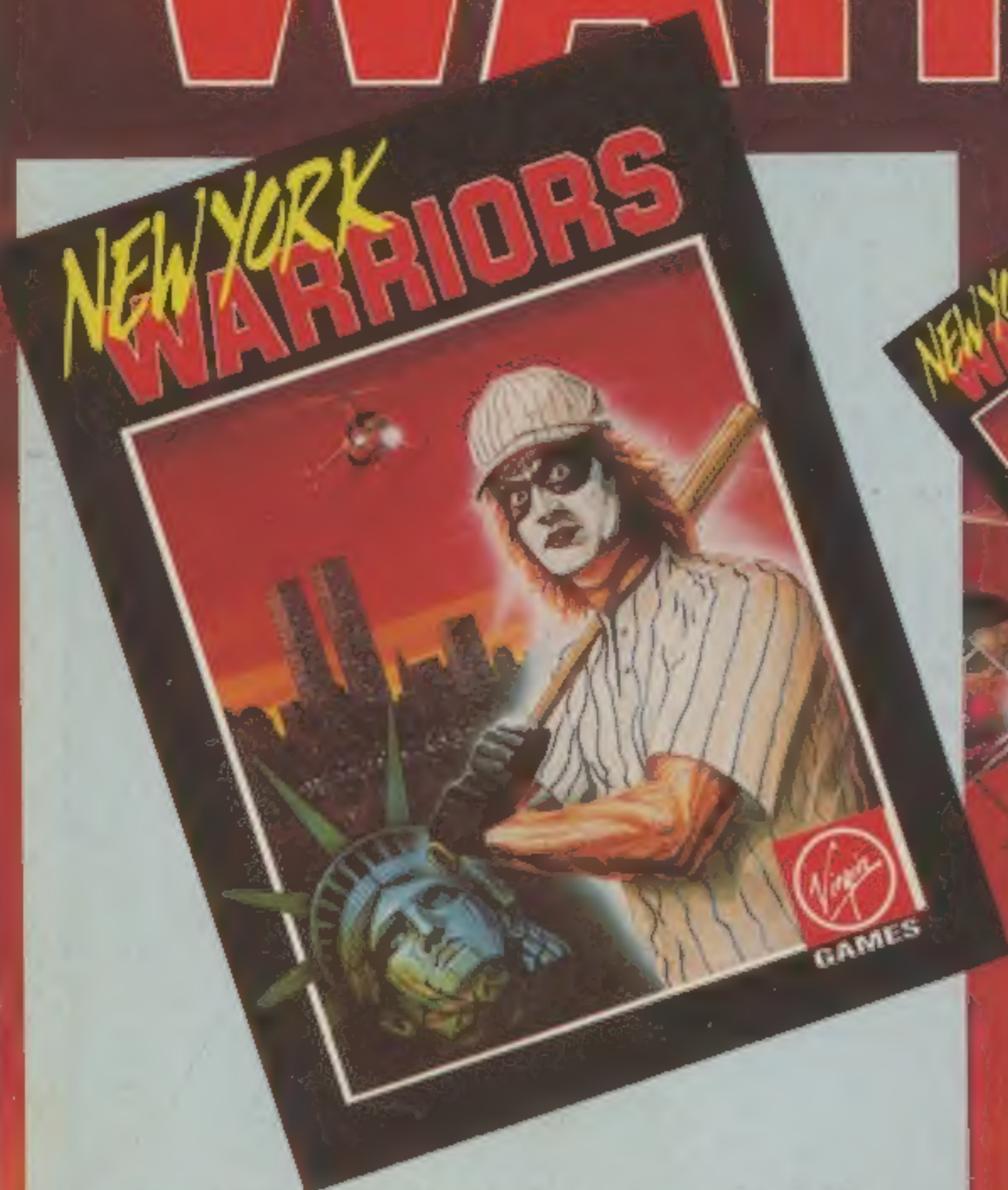
Address:

Postcode: Tel:

Which computer(s), if any, do you own? A2000 ☐

NEW YORK WARRIORS

OUT
NOW



The Year 2014 – New York is lost to organised crime.
Only a valiant few remain loyal to law and order
– They are THE WARRIORS.

You, as 'THE WARRIOR' have to fight your way through
the streets to save New York using an
awesome array of devastating
weapons. If you fail, New York
will be destroyed by a nuclear
device planted in the World
Trade Centre.

You cannot, you must not, fail!

SPECTRUM



AMSTRAD

AMIGA



ENGLISH

FRANCAIS

DEUTSCH

ITALIANO



© 1990 ARCADIA SYSTEMS INC.

© VIRGIN MASTERTRONIC LIMITED

16 PORTLAND ROAD, LONDON, W11 4LA



GAMES